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EDUCATION

VOLUME 71 — No. 4

RECENT TRENDS IN APPRAISING ACHIEVEMENT NUMBER

The Teacher's Role in Evaluating Pupil Achievement

New Developments in Evaluating Achievements in the High School

Suggestions for a Better Interpretation and Use of Standardized Achievement Tests

A Square Deal for the Examination

Newer Emphasis in the Construction of Achievement Tests for College Students

Trends in the Evaluation of the Social Studies

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A Guidebook on Content and Method

By LESTER A. KIRKENDALL

Associate Professor of Family Life Education
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DEVOTED TO THE SCIENCE, ART, PHILOSOPHY AND LITERATURE OF EDUCATION

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Dr. D. WELTY LEFEVER, *Editor*
University of California

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EDUCATION

Vol. 71 DECEMBER 1950 No. 4

The Teacher's Role *in* Evaluating Pupil Achievement

By D. WELTY LEFEVER

Professor of Education,
University of Southern California

THE testing program as it operates in many school systems contains some elements which are determined by the central office; other aspects of the program may differ from school to school. The appropriate part and function of the classroom teacher in the total program of measurement is not always easily defined. The range of practice with respect to the amount of participation by the teacher in setting up the total pattern of testing is considerable. In some school systems, especially the larger ones, the total plan for testing is determined by the staff at headquarters and detailed instructions are passed down the line to the rank and file of teachers and building administrators. On the other hand some schools take a completely *laissez-faire* attitude toward all forms of testing. Whatever measurement is carried on will be a matter for each principal or teacher to decide. Somewhere on the continum between over-planning and under-planning is the democratic procedure which provides an opportunity for the classroom teacher to assume an important role in setting up the overall design for evaluation.

No doubt much can be said regarding the advantages of detailed central planning and of uniform system-wide testing. The staff at the central office usually includes one or more specialists in research and measurement. Much time is saved by the fact that a single pattern is applied to all schools. Duplication and inconsistency are prevented. A picture of achievement for all aspects of the curriculum is made available for every classroom in the system. Because the measuring devices are uniformly applied, the comparative status of the several schools can be clearly seen and a minimum base for testing every pupil definitely established.

The system-wide survey of achievement may involve certain hazards. The teaching staff may feel that the whole testing program has been imposed from above; they may regard it as someone else's business and not a matter for deep personal concern. Remote planning often fails to elicit whole hearted cooperation.

Teachers have been known to chafe under the extra burden of the testing program, specially scoring the tests and recording the results. Some have resented the loss of time from the scheduled routine of the classroom. These attitudes appear to be most prevalent when the instructor has not been sold on the value of measurement as a direct aid to better teaching and when he has not been assigned an active part in defining the purposes and determining the general nature of the program.

When the data from an achievement survey are summarized for the administration by individual classrooms and schools, it is very likely that some, if not all, of the teachers and principals will feel that they have been put "on the spot." That is, they may feel that their professional competence is being judged from the test scores when many other facts about the school and classroom would need to be considered to guarantee a really fair judgment. This effect will be intensified if the test results are made available generally to the professional group. Even if the standings for each school are reported to that school only, principals and teachers have been known to compare average scores in such a way as to produce an unwholesome rivalry. Whenever the central office knows where each teacher stands in the table of survey results that teacher may well believe that his status in the eyes of the administration is more or less directly affected. Benevolent statements to the contrary by the superintendent may well be discounted by the staff.

A more subtle danger that may carry unfortunate consequences for the overall effectiveness of education, is the possibility that the achievement tests employed may determine what will be taught in the classroom. If the results of these tests are interpreted in any way, directly or indirectly, by the administration as an index of successful instruction, the teacher may well endeavor to produce higher test scores. The greater the emphasis placed on test findings the stronger will be the teacher's desire to conform to the curriculum pattern set by the test. An important question arises: are the test makers qualified to set the curriculum for the school? And if they should be, does such an indirect and remote plan of curriculum making represent a wholesome educational policy? The school system that believes in using democratic process in developing its educational program will certainly find that it is essential to provide for teacher participation in the development of measurement policies and program.

Many school systems have found it possible to develop a balanced program of measurement and evaluation to which specialists and teachers, as well as administrative and supervisory staff, can all make their unique contributions. When each member of the educational team is given an opportunity to participate in setting the general policy, individual initiative is encouraged and many, if not all, show an intelligent interest in evaluating the effectiveness of their professional activities.

Some specialists in measurement, knowing the increasing complexity of the technical aspects of testing, will seriously question whether any considerable number of instructors are able to offer worthwhile assistance in planning the testing program. The average teacher is not an expert in testing

and would certainly lay no claim to such distinction. On the other hand, he is well acquainted with the objectives of the curriculum and with the activities designed to aid each pupil progress toward those goals. The modern concept of evaluation recognizes that the aims of the course of study must determine the scope and character of the measuring devices used. Achievement cannot be adequately measured until a working definition of the nature of what is to be achieved has been clearly stated, recognized by the teacher and incorporated into the daily work of the classroom.

When it is understood that the approach to evaluation must reflect what has actually been accomplished in the classroom, the teacher's part in the program of achievement testing stands out more clearly. Many educators believe that it is essential for the classroom teacher to participate in determining the general nature of the curriculum, and in selecting the specific activities through which its goals will be realized. It should be equally important for the classroom teacher to assist in determining the general character or flavor of the testing program and to help in deciding the *kinds* of measuring devices to be used. The services of a specialist will probably be needed in determining *which* instruments are most likely to do best the work required of them.

Perhaps the total program of measurement can be divided into two major phases: (1) the day to day evaluation of many aspects of classroom activity and (2) the general survey administered uniformily throughout the school system.

In planning the first phase, the frequent measurement of a variety of pupil activities, the teacher must certainly play the leading role. Outlining the general character of these activities and determining how they will be evaluated are parallel responsibilities. Published test materials are available for testing some aspects of pupil achievement. Perhaps the skill subjects are most satisfactorily measured by tests developed and standarized for nationwide use. Satisfactory "content" samplings in such areas as history, biology, literature or geography are much more difficult to produce. Curriculum emphases are more nearly constant from school to school and from region to region in the skill subjects than in the other phases of the program. No doubt most teachers can profit by some expert help in selecting standard achievement tests and particularly in interpreting the results for the maximum benefit to all. If the assistance from specialists in measurement is to be most effective, it should endeavor to make the teacher less dependent on such help as the years go by. The in-service training of the teaching staff in the art of skillful evaluation should be a major objective of all supervisory and administrative workers.

Teacher-made tests should be considered essential tools for checking pupil achievement. They are especially important on the secondary level where courses of study differ widely among the school systems of the country. Published tests cannot do justice to so wide a range of subject matter emphasis. It should be kept in mind that valid instruments of evaluation must represent faithfully the objectives and activities which constitute the functioning curriculum of the school. This means that home-de-

signed tests will be needed for the "content" areas and for measuring the less tangible phases of education.

There is much reason to believe that teachers grow in professional competence as they participate in test construction. Well-constructed tests require that the teacher analyze thoughtfully the exact goals of instruction as well as the nature of the pupil activity through which these aims are to be realized. By participating in evaluation the classroom teacher will learn to observe and interpret the evidences of pupil growth as shown in specific instances of pupil behavior. When these observations are made regularly and according to an orderly plan they contribute not only to more adequate evaluation but they also form a vital part of an in-service training program for the faculty of the school.

Specialists in measurement can contribute vitally to the effectiveness of education in their communities by encouraging and assisting teachers to plan their instruments and techniques of evaluation while they develop their courses of study and their classroom procedures.

A survey of educational accomplishment for the entire school system makes possible a much needed general assessment of the strengths and weaknesses of the curriculum and of the instructional effectiveness of the school program. The plan of measurement may focus on a single grade level or on selected grades; it may deal with all curriculum areas or with a limited number of subjects. Such a system-wide achievement survey usually possesses the advantages of careful design, expert test administration, machine scoring, complete statistical analysis and painstaking interpretation.

Since the major purpose of a general survey is to evaluate the educational program and not to pass judgment on the individual teacher, certain precautions can insure better faculty morale. The evils of direct appraisal of the skill of an individual teacher from achievement test scores are widely recognized. In milder form they include a reduced sense of teacher security, a tendency to slant instruction in harmony with the curricular emphasis of the test, and a desire to rationalize away any weaknesses the test may reveal. Direct coaching for the test, or a strongly antagonistic attitude toward all testing on part of the faculty, represent some of the more serious hazards. Few administrators plan to judge the professional competence of their instructors from class averages, but the availability of survey data which has been summarized for individual teachers and schools suggests that such judgments may be an incidental outcome of the survey. Unwelcome and unnecessary comparisons among teachers and schools can be prevented and any possible form of appraisal of particular teachers from the survey results can be completely eliminated by the use of a "submerged sample."

The simplest procedure is to omit teacher and school identification from the final summary sheets so that the survey outcomes are expressed in terms of grade level averages for the entire system or, in large urban centers, for neighborhood areas. Since most surveys would be more comprehensive in the sense of including more evaluative devices if time and cost would permit, a sampling procedure can be employed which will extend the scope of the survey. In one such

survey in which the writer participated, four random samples of pupils were selected by the use of code numbers and a table of random numbers. Each random group of pupils was given a different set of tests. Separate teacher rating forms, observation schedules, and evaluative devices were used with each of the four groups. Since each of the four random groups was relatively large, it was felt that no serious loss of validity resulted from the use of a sampling procedure. Perhaps the most difficult part of the planning arose from the necessity for providing four test administrators to test simultaneously the four groups from a particular grade level within each school. A team of qualified testing personnel moved from school to school as the survey progressed. Teacher cooperation was exceptionally good because the demand for time beyond the regular school day was reduced to a minimum and because class groups were so thoroughly submerged by the sampling procedure as to make the identification of the individual instructor very difficult.

There are many important ways in which classroom teachers can and should participate in the functioning of a system-wide survey of achievement. They certainly ought to be well represented on committees assigned the task of designing the survey. Again, valuable in-service education can be a major by-product of such planning when it is thoroughly done. After the measuring devices have been administered, scored, tabulated and analyzed, there is still much significant thinking to be done. What are the implications of the survey findings? Are important changes in the curriculum indicated? Should the character of the teaching methods be altered? What other improvements in the educational program ought to be made? The maximum amount of cooperative thinking by the largest number of teachers under skillful leadership should produce the most successful overall evaluation.

The findings from a general achievement survey can provide excellent subject matter for discussion by teacher committees, faculty meetings, summer workshops, in-service training seminars and supervisory staff sessions. The classroom teacher can contribute to improved public relations by bringing the survey results and their attendant problems to the attention of parent groups for their consideration and suggestions. No doubt certain selected aspects of the survey could be discussed with profit by student groups, particularly in the secondary school, under competent teacher leadership.

By way of summary, the role of the teacher in the measurement of pupil achievement may be described in terms of the following list of specific activities. In relation to the evaluation of achievement, the classroom teacher will need to:

1. Participate in planning the appraisal of the educational program. When achievement testing is considered to be an integral part of curriculum design, the teacher's role is clarified. He will work closely with the administration in setting up behavioral objectives, in developing curricular patterns, in devising evaluative instruments and in selecting appropriate measuring tools from those already available. Through such cooperation he will grow in professional competence and perspective.

2. Provide important kinds of

assistance in the actual operation of the testing program. Such cooperation would probably include:

(a) Administering many of the achievement tests under the supervision of specialists. Whether the teacher takes full charge of giving the tests or not, he can do much to aid in establishing class rapport. How pupils feel about the test has much to do with the validity of the results. If the class understands the purposes of the measurement and if they see that they will benefit personally from the findings, they are more likely to cooperate wholeheartedly and to make good use of whatever scores are made available to them. Naturally all teacher-made tests will be administered by their designers.

(b) Scoring some, if not all, achievement tests. Where IBM machines are available, the tests can be constructed for ease of handling by such scoring devices. Some tests, at least, could be corrected by the class through exchange of papers or by pupils scoring their own examinations.

(c) Recording the results in some form of cumulative system so that the necessary evidence for the systematic study of pupil growth will be available.

3. Examine test scores carefully in order to understand the needs of his pupils more adequately. While measures other than those of achievement are probably of greatest importance in understanding each pupil, achievement tests may throw much valuable light on interests, special skills, serious deficiencies, and on the general nature of pupil growth in school learnings. By comparing these scores with measures of aptitude for learning, the overachievers and underachievers in the class may be located. The former may be compensating for personality difficulties or weaknesses by an unhealthy concentration on certain narrow aspects of school success. The latter are more generally recognized as belonging to a relatively large group who fall considerably short of their potential levels of accomplishment.

4. Study the errors made by each pupil in order to discover learning difficulties and to plan a remedial campaign when necessary. More effective teaching should be the result of such a dianostic analysis of pupil strengths and weaknesses. Shooting with a rifle at specific targets will usually produce superior results to firing a shot gun in the general direction of rather vague objective.

5. Utilize the test outcomes as a basis for more skillful guidance. Whether employed as aids to a group guidance approach or in counseling the individual pupil, achievement test scores can assist in

(a) Developing suitable educational goals,

(b) Improving the techniques of study, and in

(c) Selecting vocational areas in which success seems probable.

6. Marshal the outcomes from the evaluation of each pupil's growth so that a meaningful report of his progress can be made to his parents. An accurate and objective picture of his achievement will aid his parents in cooperating more intelligently with the school and will increase their respect for the program of education.

7. Appraise his own teaching success in the light of test results. Even though self-appraisal is accompanied by a greater sense of personal and pro-

fessional security for the teacher than is possible when class averages are judged by the central administration, there is still some danger that the test scores will be taken too seriously by the teacher as direct evidence of teaching skill. Teacher success must be evaluated in terms of many factors only a few of which are measured by the achievement scores.

8. Cooperate with the superintendent and his staff in thinking out an overall interpretation of system-wide achievement surveys and in presenting many of the findings to groups of parents.

SOME GOOD CHILDREN'S BOOKS

Reviewed by CECILIA SATTELY

Indians of the Longhouse. The Story of the Iroquois. By Sonia Bleeker, New York. William Morrow and Company. 1950. 160 pages. $2.00.

At last we have a true story of the customs, traditions, and everyday life of the Iroquois, presented for young people of beginning high school. This is not a book about the Indians and their bloody raids on the settlers of America. It is, however, a story of this Indian tribe, a tale of their community-type life. Their life of hunting, cultivating the fields, harvesting crops, and making tools and weapons and clothing, was a life shared by all the people of the village. This is a first book of a series which will tell of different Indian tribes. It is excellently told for the discerning young teen-ager.

Tippy. By Sally Scott. Illustrated by Beth Krush. New York. Harcourt Brace and Co. 1950. 42 pages. $1.75.

"Tippy was the last kitten left in the house. He did not like it." This is a sympathetic and humerous story of a little kitten who is searching for a large home with company to play with. Only at the end of a long day did Tippy find just the right home. An excellent book for six-to-nine-year olds.

Song of the Seasons. By Addison Webb. Illustrated by Charles L. Ripper. New York. William Morrow and Co. 1915. 127 pages. $2.50.

Mr. Webb provides our youngsters with an enchanting book on nature and natural life. This is indeed a rare book. It presents a whole array of animals in delightful manner, and provides the six-to-ten-year old with quite a bit of newly-acquired understanding of the creatures of the forest.

Henry Huggins. By Beverly Cleary. Illustrated by Louis Darling. New York. William Morrow and Co. 1950. 155 pages. $2.00.

Henry has a knack for accomplishing the unusual. From the time he picks up a stray dog, Ribsy, through episodes with guppies, night crawlers and similar creatures, until Ribsy wins the silver cup at a dog show, we have a truly enjoyable time. It might be well to add here, that Ribsy wins the cup, not for being the best bred dog, but for being the most unusual.

Miss Cleary's remarkable skill in writing stories about youngsters is a skill that few authors attain. This, combined with ingenious illustrations by Louis Darling, make for an excellent addition to any children's library.

New Developments *in* Evaluating Achievement *in the* High School

By J. WAYNE WRIGHTSTONE
Director, Bureau of Educational Research,
Board of Education of the City of New York

IN recent years several new developments have become evident in the evaluation of achievement in the high schools. One of the most notable has been an increased scope of the objectives which are considered as a part of the total instructional program and experiences of high school pupils. Contrasted with the emphasis of a decade or two ago upon recall or recognition of concepts and information, scope of objectives has been extended from subject-matter concepts, skills, and abilities to include such other important objectives as interests, attitudes, critical thinking and personal-social adaptability. A second new development has been an increased emphasis upon appraising understanding and interpretation, rather than specific skills and abilities in such subject-matter areas as language arts, mathematics, social studies, and science. A third new development has been a gradually increasing interest and responsibility for assessing group and individual social status and social adjustment.

These new developments indicate that the modern teacher and supervisor is concerned with important functional learning outcomes, many of them less tangible and less easily measured than concepts, skills and abilities represented in subject-matter tests of the past several decades. The concern for the total development of the child—physical, emotional, social and intellectual—has placed an emphasis upon a sound understanding of child growth and development and of individual and group differences as well as upon the personal and social adjustment of the pupils.

Developments in Tests of General Educational Achievement

The trend toward an emphasis on the measurement of understanding and interpretation, rather than upon isolated information, skills and abilities is particularly observable in the tests of general educational development. These are represented by such test batteries as the United States Armed Forces Institute Tests of General Educational Development[1] and and the Iowa Tests of Educational Development.[2] A similar trend is evident in the tests recently constructed by the College Entrance Examination Board and other tests devised by the Educational Testing Service. At the college level measurement of understanding is stressed in the examinations constructed for the Graduate Records Examination.

The tests of general educational development generally consist of exercises in which information is presented

2 Published by Science Research Associates, Chicago, Ill.
1 Published by Educational Testing Service, Princeton, N. J.

in verbal, graphic or other form and the test exercises are devised so as to measure the ability of the individual to comprehend and interpret the material presented in the test exercises. This contrasts with the isolated test item which emphasizes the recall or recognition of items of information. These tests generally cover such areas as language arts, including literature, social studies, science, and mathematics.

Another recent trend in tests and examinations has been the increased use of informal or teacher-made test exercises for instructional purposes to supplement the formal or standardized tests. Some surveys show that the average classroom teacher uses a ratio of 5 or 6 teacher-made tests to every standardized test employed. These informal tests have values for the day-by-day appraisal and guidance of pupils in specific units of classroom study.

Developments in Tests of Academic Aptitude or Intelligence

In the past decade several new developments have characterized the tests of academic aptitude or intelligence. First is the development of mental ability tests such as the California Test of Mental Maturity which provides for a language and nonlanguage IQ as well as a composite IQ. Second is the development associated with the factor analysis of mental abilities in which Dr. L. L. Thurstone has been a leader. By statistical factor analysis various mental abilities have been analyzed and interpreted into seven primary factors. These include: the verbal factor, which involves vocabulary and reading comprehension; the number factor, which involves speed and accuracy in computation; the space factor, which involves visualization of space relationships; the rote memory factor; the perceptual factor, which involves discrimination of likenesses and differences; the word factor, which involves naming isolated words at a rapid rate; and the reasoning factor, which means finding a rule or principle involved in a series of numbers, letters or words. The mental ability tests that incorporated the results of these tests are called Tests of Primary Abilities and are published in batteries for various age levels by the Science Research Associates in Chicago. Along somewhat similar lines are the Differential Aptitude Tests which have been constructed by the staff of the Psychological Corporation. Differential Aptitude Tests measure similar abilities and are especially useful for guidance work and counseling of high school students, both for educational and vocational guidance purposes.

In reading, a recent trend in the measurement of achievement has incorporated an analysis of the factors involved in reading comprehension. The findings of Davis have been incorporated in the Cooperative Reading Comprehension Tests. Based upon a study involving factor analysis, Davis has identified two general factors and six specific factors in reading comprehension. The general factors are, one, word meaning and, two, reasoning in reading which involves ability in weaving together several ideas and showing their relationships as well as an ability to draw correct inferences from the writer's statements. The specific factors analysis are: (1) Ability to determine the writer's purpose, intent or point of view; (2)

Ability to understand the writer's explicit statements or to get the literal meaning; (3) Ability to follow the organization of a passage; (4) Ability to select the main thought or idea of a paragraph or passage; (5) Ability to determine from context the meaning of an unfamiliar word, and (6) Ability to determine the tone and mood implicity or explicit in a passage.

Related to tests of reading are tests of literature. These include the usual literary information tests, and such tests as the Cooperative Literary Comprehension and Appreciation test which assesses the students' ability not only to get factual meaning from literary materials but also to appreciate their emotional, aesthetic and rhythmical aspects. The Cooperative Test Service will have available in the fall of 1950 a test entitled Interpretation of Literature, which was developed in the Eight-Year Study. This test consists of O'Henry's "A Municipal Report" followed by seven groups of interpretive questions about the short story. The student is asked to analyze various aspects of the story and evaluate the author's point of view. Another test entitled, Test on the Use of Books and Libraries, includes illustrations and ingenuous devices to measure skill in the use of books and libraries. Different parts of the test evaluate ability to use an index, a card catalog, encyclopedias, The Reader's Guide to Periodic Literature and similar skills.

Developments in Tests of Mathematics

Tests of achievement in mathematics have been marked by several trends. A notable new development has been the construction of test exercises for objectives other than computational skills and problem-solving ability. These new developments are illustrated in the Cooperative Test of General Mathematics and in the New York State Progress Tests in Mathematics.[3] These tests measure not only computational skills but also mathematical ideas and concepts, mathematical judgments and mathematical appreciations. Similar objectives are measured in the New York Arithmetic Judgment Test constructed and published by the Bureau of Educational Research of the Board of Education of the City of New York.

Developments in Tests of Social Studies and Science

In the fields of both the social studies and the sciences at the secondary school level, new developments have emphasized the measurement of critical thinking as well as various work-study skills. Newer tests have placed an emphasis upon comprehension and understanding of data which are presented, rather than upon the recall of specific items of information. These developments may be illustrated as follows. In the social studies the Cooperative Test of Recent Social and Scientific Developments measures the degree to which the student is making sound and critical observations about recent changes and developments in our contemporary civilization. In addition to the more usual tests of American history, Modern European studies material. The Cooperative tive Social Studies Tests which measure three major objectives; namely (1) facts, skills and applications, (2)

3 Published by State Education Department, Albany, N. Y.

terms and concepts and (3) comprehension and interpretation of social studies material. The Cooperative Test of Social Studies Abilities measures ability to obtain facts, organize facts, interpret facts and apply generalizations.

In the field of science, in addition to the tests of knowledge in general science, biology, physics and chemistry, the Cooperative Science Test follows the same format as the social studies test. It includes three subtests as follows: (1) facts, skills and applications, (2) terms and concepts and (3) comprehension and interpretation of science material.

Developments in Tests of Critical Thinking

One area of achievement common to many content subjects is the development of critical thinking. Within the last decade, test technicians have developed measures for various aspects of critical thinking. These tests[4] may be illustrated by the Interpretation of Data Test, which is designed to measure the ability of the students to perceive relationships in data, ability to recognize limitations of the data and to make judgments about the validity of inferences that are drawn from the data. Other tests are the Application of Principles in General Science, Application of Principles in Physical Science and Application of Principles in Biology. These tests describe actual situations and the student is asked to decide which of three suggested conclusions is in best accord with the facts stated. He is then required to select statements of reasons which support the conclusion that he has selected. The Logical Reasoning Test includes problem situations in which the student is given a paragraph and is asked to choose one of three suggested conclusions and to indicate which statements following the conclusions he thinks are relevant and which are irrelevent.

Other tests of critical thinking include the Cooperative Test of Social Studies Abilities and the Watson-Glazer Tests of Critical Thinking.[5] It may reasonably be assumed that present tests of critical thinking will be improved through further research and experience.

Developments in Tests of Trade Knowledge and Performance

The measurement of achievement of the various industrial and commercial skills and abilities in various occupations and trades has been relatively slow. Generally, the evaluation has depended mainly upon the observation and appraisal of the teacher of the various shop and related subjects or activities. In the Study of Vocational Education in New York City, now currently in progress, various tests of trade knowledge and of trade performance have been devised for the fields of automotive trades, machine shop trades, electrical trades, trade dressmaking, cosmetology, and stenography and bookkeeping. In the field of stenography and bookkeeping several standardized tests are already available through commercial publishers. In the New York Study, however, the trade information has been assessed by pencil-and-paper tests consisting of items related to the New York City course of study in each of these trade

4 All tests mentioned in this paragraph are published by Educational Testing Service, Princeton, N. J.

5 Published by World Book Company, Yonkers, N. Y.

areas. These tests measure concepts, information and non-manipulative skills in each field. The performance tests for each trade have consisted of a series of a sample of jobs which are performed under uniform conditions by the students. The performance is observed and rated upon a specially constructed observational checklist involving a rating on each step of each job. This device has permitted more uniformity in standards of observation and judgment of the performance.

Developments in Tests of Interests

Secondary school teachers use a variety of formal and informal techniques to gather information about interests. Teachers frequently ask pupils to keep diaries or logs of books or magazines that they have read. These logs are then evaluated by the teacher. In the more formal measurement of interests, especially vocational interests, tests such as the Kuder Preference Record[6] for various occupational interests have been used. The Strong Vocational Interest Inventory[7] has been known and used for a long time. A more recent test is the Lee-Thorpe Occupational Interest Inventory[8] which provides a measure of the vocational and occupational preference of high school students so that they may be guided into occupations in which they are interested and also in which they have abilities.

Developments in Tests of Attitudes

In the measurement of beliefs or attitudes, major emphasis has been placed on social or civic beliefs. Several types of attitude scales have been developed. Remmers at Purdue University and Thurstone at the University of Chicgo have developed a series of scaled statements on such topics as attitudes toward other races, and various social and economic problems. Another development is the more generalized scales such as the Scale of Beliefs by the staff of the Eight-Year Study and the Wrightstone Scale of Civic Beliefs.[9] These various scales permit teachers and supervisors to judge growth of students toward achieving desirable civic attitudes and beliefs.

Developments in Tests of Personal-Social Adjustment

In the area of emotional and social adjustment, evaluation of complex and intangible attitudes and emotional states is more difficult to achieve. In many schools, rating scales such as the Haggerty-Olson-Wickman Behavior Rating Scale[10] and the Winnetka Scale for Rating School Behavior[11] are used. Anecdotal records on particular pupils are also frequently employed. Tests of personality are used by some teachers, but such tests should be used with great caution and only by persons who have had adequate training for interpreting the results.

Such self-descriptive tests as the California Test of Personality[12] do give some important leads, provided the examiner has excellent rapport with the pupils being tested. Among the newer technics that have been

6 Published by Science Research Associates, Chicago, Ill.
7 Published by Stanford University Press.
8 Published by California Test Bureau, Los Angeles, Cal.
9 Published by World Book Company, Yonkers, N. Y.
10 World Book Co., Yonkers, N. Y.
11 Winnetka Educational Press, Winnetka, Ill.
12 California Test Bureau, Los Angeles.

found valuable by many of the teachers are the sociometric methods.[13]

One method involves asking the pupil to list the names of pupils in the class whom he likes best. From these data it is possible to make a chart or to discover the degree of social acceptance of each pupil by his classmates. If the sociogram is used, it gives a graphic picture of the social structure of relationships among pupils in the class. Thus, it is possible to discover which pupils are overchosen or selected by many other pupils as well as those who are isolates or chosen by virtually no other member of the class. Another variation of the sociometric method is to ask individuals which members of their class they would select for various parts in a play. This involves naming individuals who would best fit the part of "person who helps others," "the bookworm," and similar roles. Analysis of these data will reveal the social and emotional status of the individuals.

It is recommended that not one method but rather a combination should be used to assess personal-social adjustment. If a combination of technics consistently reveals maladjustment of a pupil, the diagnosis is usually valid. Thus, a pupil who is consistently rated as maladjusted on a rating scale, a personality test, and a sociometric analysis is almost sure to reveal serious problems of emotional and social adaptability. The methods suggested here are more practical in the average school situation than is the administration of projective personality technics which require a highly trained clinical psychologist.

13 Described in *How to Construct a Sociogram*, Bureau of Publications, Teachers College, Columbia University.

Summary

The new developments in tests at the secondary school level may be briefly summarized as follows: Tests of general educational development have been constructed to measure understanding and interpretation, rather than recall or recognition of isolated information. Newer tests of academic aptitude or intelligence have been devised in order to measure differential aptitudes, abilities or factors that are involved in our present-day conception of intellectual ability.

In the field of the language arts, new tests on mechanics of expression and effectiveness of expression have been formulated to measure the achievement of pupils by means of functional exercises. In reading and literature, the tests have been construced to measure not only the literal interpretation or comprehension, but also various appreciations and emotional interpretations which the author of a passage attempts to convey. In the field of mathematics the newer developments have stressed not only computational skills and problems but also mathematical ideas and concepts, mathematical judgments and mathematical appreciations.

In the measurement of interests and attiudes, various formal and informal techniques have been devised in order to discover the educational and occupational interests of students. In the evaluation of trade knowledge and performance, newer tests in the fields of the various industrial and commercial occupations are in the process of construction.

Within the past decade, tests of critical thinking have been developed in order to measure such aspects of thinking as interpretation of data, application of principles and logical reasoning.

In the evaluation of emotional and social adjustment, self-descriptive personality tests have been supplemented by sociometric and projective techniques in order to determine personal and social adjustment of pupils.

It may be assumed that these newer developments will continue and that improved test exercises will appear. The teacher and supervisor can use these newer instruments in order to evaluate the curriculum of the secondary school as well as to guide the growth and development of pupils.

MORE CHILDREN'S BOOKS

Reviewed by CECILIA SATTELY

Rise Up and Walk. By Turnley Walker. New York. E. P. Dutton and Co. 1950. 95 pages. $1.75.

Rise Up and Walk is not a book written for children nor about children. This reviewer has such a high regard for the book, however, that she is placing the review in this column. *Rise Up and Walk* is an emotion-capturing, mind-holding book. With exquisite economy of words, Mr. Walker tells the entire terrifying and yet reassuring story of his fight against polio.

As this reviewer has said, the book is intended for adults. However, it possesses that universal character, that briefness and terseness which makes for excellent reading by all age groups. Teachers of the orthopedically exceptional will want to read this book themselves, and will want to pass it on to their youngsters.

Schoolroom Zoo. By Catherine Woolley. Illustrated by Iris Beatty Johnson. New York. William Morrow and Co. 1950. 191 pp. $2.00.

Catherine Woolley's books have succeeded in bringing warmth and humor to many of our younger school children. This time she gives us a story of Ellie, and her companions in the third grade, who form a schoolroom zoo. Fear of different animals disappears, as each child obtains an understanding of such things as snakes, peepers, and everything from toads to spiders to household pets. Good adventure for early elementary school children.

Playtime for You. By G. Warren Schloat, Jr. New York. Charles Scribner's Sons. 1950. 64 pages. $2.00.

Four-to-seven-year olds will enjoy this small book of ideas for leisure hours. This book contains a fair selection of activities for pre-school youngsters.

A Boat for Peppe. By Leo Politi. New York. Charles Scribner's Sons. 1950. 30 pages. $2.00.

Once again Leo Politi has favored parents and youngsters with another of his charming tales. The story, especially suitable for children from four to eight, tells of Peppe, of his father who is a Sicilian-American fisherman, and through them, of the whole family—all placed in colorful and unique Monterey. Mr. Politi lives up to the great expectation of those who read his books. As usual, there is a true understanding of children, insight into their needs, and a warm feeling for family life.

The Size of It. A First Book About Sizes. By Ethel S. Berkley. Illustrated by Kathleen Elgin. New York. William R. Scott, Inc. 25 pages. $1.00.

Early elementary school youngsters will particularly like this book. It is written by a woman who has pioneered in the field of non-numerical arithmetic—how to teach the facts of size and relationships without numbers, as a basis for later understanding of arithmetic. *The Size of It* is a result of her own experience with the subject.

Suggestions *for a* Better Interpretation *and* Use *of* Standardized Achievement Tests

By GILBERT L. BETTS
Editor, Educational Test Bureau, Minneapolis, Minnesota

IN the minds of most school persons the word "achievement" means "extent of learning." Learning is produced, of course, by the continuous interaction between a person and the changing network of circumstances surrounding his life. The extent of his learning at any particular moment is the result of his ability to learn and of the force of prior circumstances. Traditionally the schools are charged with the production of learning. This they do by setting up learning situations. They universally desire, therefore, to determine the potency of the situations they set up.

This desire gave rise, years ago, to the achievement test. With its first use, it became immediately apparent that enormous differences in pupil achievement existed among schools. Through concurrent use of the intelligence test, it was apparent also that the average ability of pupils varied greatly from school to school. The problem then became one of determining the extent of learning in relation to ability to learn. But profound difficulties have continued, from that day to this, to stand in the way.

Ability versus achievement

Obtaining separate measures of ability and of achievement, is the great stumbling block. The basic measure obtained through use of the intelligence test is mental age. Standard procedure in constructing an intelligence test is to select items passed by an increasing proportion of persons in successive age groups. But the majority of persons in these criterion groups also go from one school grade to another, year by year, as they grow older. Such tests, therefore, measure a mixture of mental ability and achievement.

Construction of the conventional standardized achievement test follows a similar procedure. In this case items comprising the test are items passed by an increasing proportion of persons in successive grade groups. But here again these criterion groups are also older, grade by grade. Furthermore, the majority of questions in a wide-range achievement test pertain either to material the examinee has not yet been taught or to material he was taught one or more years previously. The more able the person is, the more he learns incidentally and the better he remembers what he learns. The conventional, wide-range achievement test, therefore, also measures a mixture of intelligence and achievement. According to one of the earliest and best textbooks written on the interpre-

tation of educational measurements, the overlapping between intelligence and achievement test scores is of the order of ninety percent.

In retrospect, therefore, it is not surprising that "educational age," in contrast to "mental age," was almost immediately discredited by competent investigators. It followed from this that the "educational quotient," in contrast to the "intelligence quotient," could not live. And the "accomplishment ratio" was scarcely born before it died. All that remains is the original need for evaluating achievement in relation to the ability to achieve. Although this need is as urgent as ever, it seems not to be felt so keenly now. Today test users seem satisfied to judge achievement solely by reference to grade norms. If pupils are average or above, satisfaction prevails; if they are not, dissatisfaction is manifested.

Grade norms

Grade norms are almost always furnished by publishers of elementary school achievement tests. A norm is an average. For example, the norm for the sixth grade at the beginning (6.0), middle (6.5), or end (6.99 or 7.0) of the school year is the average score made at such time by a large, representative sample of sixth grade pupils in all sections of the country. Testing pupils in a series of grades simultaneously, with a single test, gives the average score in each grade at that particular time of the year. The average score made by pupils at the beginning of one grade is then assumed to be equal to the average score of pupils at the end of the previous grade. Therefore, interpolating in units of one tenth of the difference between adjacent grade averages, gives the conventional grade norms. These are cross-sectional norms.

Such norms are highly satisfactory to teachers because pupils in general make greater progress during the course of the year than is shown in cross-sectional norms. When standardization testing is done at the beginning of the school year, teachers using the test find a majority of their pupils above the norm at the end of the year and glow with success. They are unaware that the test they are using probably measures intelligence, not school taught learnings, and that what appears to be greater than normal progress, is a mere statistical artifact.

Longitudinal norms yield measures more nearly in line with the thinking of teachers. This is especially true when the test is designed for use in a single grade only. Longitudinal norms are set up through double testing, once at the beginning of the year and once at the end of the year. Tenth of a year units are then interpolated between these two averages and extrapolated beyond them. This gives a scale made up of units of normal grade gain in the particular year when that subject matter is taught. Thus a sixth grade pupil standing at the 7.5 grade level at the end of the year, would be said to exceed the norm by half a year. But when using cross-sectional norms, a pupil standing at the 7.5 grade level would be said to equal the average pupil in the middle of the seventh grade. It is extremely doubtful, however, that the average score of seventh grade pupils on a strictly sixth grade test, would actually be that score in the middle of the year.

Goals in education

Using grade norms as goals in education leads to mediocrity. The less able pupils are motivated to high attainment, but the more able are not. The abler pupils easily reach the norm for the grade in which they are. Furthermore, their opportunity to learn is curtailed; for schools tend to teach what is tested, and tests cover only what is commonly taught. Users reject achievement tests appearing to measure what is not taught, notwithstanding that it ought to be taught. Even if such tests were available and acceptable, conventional grade norms could not be provided; for average achievement on what ought to be taught but is not, would be near zero.

The widespread but improper use of norms as goals, is a clear indication that a new kind of standardization is needed, one that embodies both norms and goals. Certain techniques, originated during World War II, now make this entirely feasible. From a technological point of view, therefore, mediocrity need no longer be the goal in education. Tests now can be so standardized that both norms and goals are combined in a single scale.

Pending the time when such standardized achievement tests become available, better use can be made of currently available achievement tests, provided only that they measure the effects of teaching, not merely mental maturity. Improved usage of achievement tests, therefore, begins with their selection.

Kinds of tests

Currently available achievement tests range from the unit progress test at the one extreme to the survey test at the other. Between these two extremes lie diagnostic, analytical, and comprehensive tests. Unit progress tests relate exactly to what is taught. Each test covers a particular unit of work in a subject and is administered during the year, at the completion of that particular unit of work.

If all the units tests usually given in a subject during the year were given together, either at the beginning or end of the year, the test would be called a diagnostic test. It would be much too long, however, to be administratively feasible. But a diagnostic test is such a test in abbreviated form. It is used to identify "weak spots," where remedial or review work is needed.

The analytical test is a condensed diagnostic test. A number of different aspects of achievement in a particular subject are measured; but the number is less than in the diagnostic test. Related aspects, measured separately in a diagnostic test, are measured as a composite in the analytical test. The analytical test stands between the diagnostic test and a subject test, which yields one score for a school subject.

When the term "achievement test" is used, the comprehensive examination is usually referred to. Ordinarily it is a battery of separate subject tests printed in a single booklet. Frequently, however, two subjects such as History and Geography may be measured as one with a single test; and a single subject such as arithmetic may be measured with two separate tests, one in computation and one in reasoning. Usually the battery constitutes a wide-range test; that is, the booklet of tests is designed to be used in two to four adjacent grades, the questions being drawn from the subject matter

of all these grades. The composite score from all subjects, when interpreted with reference to age norms, yields the familiar "educational age." This test is a measure of general *mental* development, but is called general *educational* development.

Another type of comprehensive examination exists, however. This is the single grade battery; that is, each booklet is designed to be used in one grade only. There being a different booklet for each grade, the questions are largely drawn, therefore, from the subject matter of that particular grade. When such a test is administered at the beginning of the year, a pupil answers questions about what *will be* taught that year; when it is administered at the end of the year, a pupil answers questions about what *was* taught that year. This is in sharp contrast with the wide-range achievement test, where a pupil may be asked questions about what will be taught within the next several years, or about what was taught several years in the past.

Time of testing

By using the newer type of achievement test, a separate battery for each grade, any or all of the common purposes of testing may be realized. Testing is commonly done for three purposes:

1. To govern promotions and to guide remedial and review work before undertaking the regular work of the next grade.

2. Not to govern promotions, but after they are made to guide remedial and review work before undertaking the regular work of the beginning year.

3. To guide teachers throughout the year toward teaching pupils what they need to know and away from a repetitious teaching of what they already know.

To accomplish the first of these purposes, the test is administered in the spring, each battery in its corresponding grade. A measure is then obtained of the extent to which each pupil mastered what he was taught that school year. If it appears undesirable to use test results in making promotions, testing can be postponed until fall. In this case two alternatives are available. Each battery may be administered in the grade next higher than the one for which it was designed, battery *five* in grade *six*, for example. The results may be used to guide remedial and review work before undertaking the regular work for that year.

On the other hand, each battery may be administered in the grade for which it was designed. In this case results are useful in guiding teachers away from teaching pupils what they already know about the ensuing year's work and toward teaching what they need to know. In the most effective testing programs, tests are given in both spring and fall, each battery in the grade for which it is designed. Then all three of the common purposes of testing can be realized.

Using results

In these dangerous times, however, mediocre achievement of superior pupils is not enough. Their achievement must equal their ability. Neither must inordinate pressure be imposed on less able pupils, lest maladjustment, truancy, and crime result. Each pupil should learn at his own best rate. The rate at which he can learn

is governed by his state of mental development. To determine whether a pupil should be further motivated, his achievement may be compared with his ability. If his percentile rank in achievement is below his percentile rank in intelligence, further motivation is warranted. If the two percentile ranks are equal, he is making the progress that is normal for him. Rapid progress is normal for the superior pupil and slow progress is normal for the dull pupil.

Securing normal progress in all pupils, each according to his ability, is vastly superior to getting average progress in all pupils, regardless of ability. The average is now too low. It is probable that the less able pupils are now learning at near their maximum rate. It is equally probable that the more able pupils could learn at a much faster rate than at present. Using the kind of tests that reveal this situation, paves the way for changing it. Raising the achievement level of the most able pupils raises the average of all pupils.

The American public schools were founded to insure an intelligent citizenry, so that democracy might live. It now becomes apparent that the intellectual level of our citizenry must continually advance; it dare not mire in mediocrity. A continually raising average is such an advance; and securing it by providing equal opportunity for all, both the most able and the least able, to learn at their own best rate, is the democratic way.

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A Square Deal *for the* Examination

By CHARLES E. PAUCK
Berea College, Berea, Kentucky

HAS it ever been your experience to receive an anonymous letter condemning one of your examinations as unfair either in regard to the method of conducting it or the type of questions used? Or have you ever had a group of poor students or consistent flunkers pass one of your examinations with surprisingly high grades? Or even worse, have you seen some of your hardest workers receive mediocre ratings when compared with the percentile for the entire group?

Few instructors, indeed, have enjoyed freedom from criticism of their examinations. It is inevitable that our tests will be unfair to certain individuals, groups, or even classes, in spite of the excessive pains we may take to avoid this situation. However, as college or high school teachers we can investigate the problem further, and as a result discover the means of improving upon some unfair tactics. In the end we can expect a bettered system of imparting knowledge as a whole.

Some of the members of our classes ask the question, "Is that examination impartial?" We all know the student who has been ill, or who has some absorbing problem on his mind. He undoubtedly suffers an injustice, and his case is difficult to handle. Such types can only be dealt with individually. However, there are other groups in the class which present a more definite and menacing problem to the field of education. Let us observe more closely a few of these.

There are always high school and college men and women who enter an examination room quite confident that they have a distinct advantage over many hard working students. This is so because such a group has already a fair amount of information as to the questions which will be asked. All these people are not necessarily cheaters,[1] although some of them might have received a thorough knowledge of the test to be given through a friend who operates the mimeograph, or they might have gained access to the professor's office after hours and thus have acquired a copy of the examination. To remedy this, many instructors make up their questions on the spot. But even at that there are those who have a rather good idea of just what the professor or teacher is going to write on the board.

Just what elements make up this crowd, and to what extent have they made better preparation for the examination? Part of this group is formed of those students who have taken previous courses under the instructor and who know what type of questions he will be asking—essay, true-false, etc. Also, they have experienced his preferences for dates, or personal data, or milieu, or social aspects, etc. Thus

1 A thorough study of cheating among both college men and women can be found in C .E. McAllister: *Inside The Campus* (1948), page 117ff.

the history student will gorge himself with dates for this professor and cram on social aspects for the next one.

Another, and perhaps more dangerous, group consists of those students who are doing work under the supervision of a tutorial bureau, or members of clubs or fraternities which maintain examination files. It is not uncommon for fraternity houses and tutorial bureaus to have on hand a dossier of examination questions covering just about every course offered at the institution under every teacher. These lists are so filed away that there is a collection for each department and professor containing every examination for the past ten years or so. Fraternity men are often able to defray some of their expenses by copying down examination questions from the blackboard and bringing them home for filing. They will easily find out each teacher's pet questions and particular slants on what an examination is likely to cover. Unlike the unintiated who has to study the entire text, lecture notes, and outside reading notes, these "smart" people who have access to these files will merely concentrate on the "pet" questions.

Let us investigate another practice through which organized student groups can ruin a good final exam by making it unfair to the "unorganized" people. We would assume that, in an examination room so arranged that each student's desk is at least five feet from his nearest neighbor, the amount of cheating would reach the absolute minimum, especially if the examination given is of a brand new standardized variety. But organization can creep into even this supposedly ideal arrangement. An excellent student who is part of the organization takes a place in the room where the other members can observe him. Then through innocent looking prearranged signals he communicates the correct answers to the other members.[2] Much to the surprise of the teacher, these students come up with remarkable grades on the test.

In other cases individual people go into the class prepared with "crib" notes written on the palm of the hand, on the fingernails, or on a slide rule. And many other doubtful ways and means of answering the questions of a written test only too often prevail on the American scene.

Is it surprising, then, that some athletes who are poor students manage to get "passed along" in their courses, and that so many students can find time to be "collegiate?" Many a campus social organization is well able to assure its members of good grades, to keep its football players in the line-up, and to allow its celebrities to engage in their pressing social affairs. Glory comes to the organization when the socially ambitious can devote more time to outside activities.

Now what can be done to curb the unfair practices used by groups "in the know?"

The problem in the first place is too enormous and vast for the individual teacher, faculty, student body, or trus-

2 One example as told to the author by a member of such a group worked out in the following manner: the shoulders, sides, and head of the "key" man represented a clock or table of figures from one to fifty; the feet move on a capital H with its five parts. Thus he scratches the tip of his left ear, and his friends will know he is giving the answer to question ten. He then moves his right foot backward and one and all perceive that the correct multiple-choice answer is number four.

tees alone to settle, unless all cooperate to work out a plan. No one group can assert itself as the sole police force to see that all exams are just and fair. The authority and responsibility belong to all groups. And joint responsibility can be administered only by a committee in which all factions are represented. In the second place, the problem of fair exams is a permanent one which even no committee can supervise well at all times.[3] After the first suggesters, instigators, and crusaders, who usually make up the membership of the initial committee, have passed on, the campus politicians (both in the student body and faculty) take over. Thus conditions tend to come back to their original status after the instigating crusaders have gone from the campus.

There remains only one correct solution, namely, an independent full-time worker, or better still, a staff whose sole duty is to supervise and advise on examinations—not composed of over-worked faculty nor of honest students, but of competent, well-trained individuals from the outside. They should be as independent of the faculty as the big league umpires are of the players. This group should work out the questions with each instructor, department, and field as a whole. They should have pictures of all examinees so as to provide a check and stop the vicious rumor that one can hire individuals to take a course for him. These workers, moreover, would be able to keep proper surveillance over the students, thus putting a stop to any individual use of "crib" notes. And representative student committees should be able to offer suggestions and criticism of each teacher and of each of his examinations. A suggestion box should most certainly be located on the door of the examining committee. The importance of examinations in the progress of the American college and university student and of the high school student as well makes it imperative that at least one independent person continually advise the faculty on the success or failure of each examination in the eyes of the better students. No high school, college, or university should be without at least one qualified individual to criticize the teacher who gives the same questions year in and year out. Certainly the additional salary paid to one supervisor should not offer too great a barrier when so much good will result.

For his part there is not much that the individual teacher can do. At least he can see that all kinds of test questions be made available to each student during the course.[4] Especially tests on the same course given in the past could be mimeographed and handed out. The library and student union building should keep on file several copies of each examination. Some instructors give all members of a class an outline of the course in the form of questions. This is a good technique often neglected by most members of the teaching profession. Some young men and women can learn a course better by studying questions. Also,

3 Such a plan which is being tried on one campus is described by E. A. Robinson: *Fairness in Examinations* (School and Society, May 15, 1948) At this writing E. A. Robinson has not yet reported on the success or failure of this method of combating unfair exams.

4 Many people in both high school and college can read with profit the advice given in an article like J. C. Watt: *How To Pass An Examination.* (In Good Housekeeping, February, 1943).

the open-book examination has certain possibilities of preventing cheating, though here again, some will have a good idea of what the teacher will ask.[5]

Thus we have investigated some of the more obvious factors in modern education which might cause a student to ask, "Is that examination fair?" and have discussed a few general remedies. The important thing now is that each instructor will have to work with his fellow teacher, colleague, and even with a "pressure organization" to persuade the local administration, school board, trustees or other governing body to invest in an examiner or examining committee. Only then will one of the greatest weaknesses in high school and college education be removed, an unjust responsibility be taken from the shoulders of the instructor, and the men and women who are doing their best in our classes be enabled to get the best rewards for all their efforts.

5 For some fields of learning the open-book test has much to offer. See *Open-Book Tests* in section entitled "Education" in the Pathfinder for January 25, 1950.

BOOK REVIEWS

Gandhi. Fighter Without a Sword. By Jeanette Eaton. Illustrated by Ralph Ray. New York. William Morrow and Company. 1950. 256 pages. $3.00.

Very few Indians receive the title of *Mahatma*. Very few of them rise to such heights as to be worthy to be called "Great Soul." Gandhi's greatness of soul manifested itself in every deed. It was in South Africa that he first championed the cause of the downtrodden Indian workers. His strength, his will power, his spiritual life, his unerring wisdom brought many educated people and professionals to fight with him for the unification of India as well as for the improvement of living conditions for the Untouchables.

As we read this story of the great Mahatma, we understand more fully the true meaning of the *satyagraha*, or the passive resistance that Gandhi used as a powerful political weapon. As we read this book, we cannot help but wonder and marvel at this great man who lived in poverty in order to help his people. Every high school student who reads this book will agree with Miss Eaton's magnificent ending to the book: "He had brought freedom to a great people, and had shown humanity the path to brotherhood and peace. A merry saint, a loving warrior, Gandhi lived his adventurous life on earth as if he had been loaned from Heaven for that purpose." — WILLIAM P. SEARS

"Foundations of Method for Secondary Schools." I. N. Thut and J. Raymond Geberich, New York. McGraw-Hill Book Company, 1949. X and 493 pages, $4.00.

Recent developments in the curriculum are related to secondary school methods in this basic textbook which is written primarily for the prospective teacher. Attention is first directed to the kind of education pupils need for the common life in a democratic society. Then each of the major teaching plans found in secondary schools today is described—the "recitation" method, the subject-matter unit method, and the experience unit method. The third and final section of the book presents special aspects of general methods: the core curriculum, the comprehensive testing program, the guidance aspect of teaching, the problem of discipline, the use of audio-visual aids, and the professional improvement of teachers in service. This is an excellent and most comprehensive book, and graduate students and teachers in service will find it just as helpful and informative as will the prospective teachers for whom it was primarily planned. — WILLIAM P. SEARS

Newer Emphasis *in the* Construction *of* Achievement Tests *for* College Students

By R. R. G. WATT

Professor of Psychology and Director Testing Bureau, University of Southern California

SOME historians of education ascribe the introduction of comparative testing in America to J. M. Rice and his studies of the relationship between time spent in studying spelling and spelling skill. Others name E. L. Thorndike whose early studies touched every aspect of testing. These pioneer efforts were confined to the lower schools but little application of objective testing appeared in universities until the ninteen twenties.

The Army Alpha, which was used to test all except illiterate draftees in the first world war, had brought objective testing to general notice. Thurstone had prepared the early editions of the American Council Psychological Examination for College students and Thorndike had written his Intelligence Examination for High School Graduates. These examinations were administered to freshmen in large numbers of colleges throughout the United States and the results put in the hands of advisers but the use of the results was limited. Correlations between the test scores and grades in courses ranged from 0.10 to about 0.60 most frequently around 0.30. Such correlations are too low for the prediction of individual success, so testing languished. Academic faculties waited for the new apitude tests to predict these grades without inquiring into the validity of the grades themselves.

In general test builders in universities were specialists trained in statistics who had majored in psychology or education. Few specialists in other academic fields in the universities had much training in testing. The examinations used in academic courses continued to be the traditional essay type test and were little affected by the newer objective procedures.

University faculties tend to be parochial for reasons partly inherent in the organization of the universities around majors in departments but partly because of the specificity of so much of the research. Few workers ever try to duplicate experiments. While strictly it is not possible to reproduce all the conditions of most experiments in such areas as the social sciences, repetition might make summaries possible which might lead to the fixing of meaningful relationships and generalizations. A body of accepted knowledge and agreement on procedures was slow in being established. Everyone was his own expert. Outside of education and psychology little was known of the newer testing techniques.

Two factors have had a profound

emphasis on the development of improved examinations in universities within the past ten or fifteen years.

In the first place the study of the objectives of the liberal arts curriculum and especially the lower division curriculum has resulted in the development of the concept of general education. The careful thinking through of objectives has not only set up the first step necessarly in the development of adequate examinations but has pointed to the need of improved instruments for measuring the outcomes of revised curricula.

A second impetus to objective examinations has come through the increased numbers of students especially since the close of World War II. The necessity of employing large numbers of inexperienced junior faculty members made the problem of attaching uniform grading practices in classes meeting in multiple sections well-nigh impossible. The use of uniform objective examinations under the close supervision of senior faculty members offered a ready solution to an immediate problem. Even among faculty members who were unwilling to base the measurement of lower division achievement entirely on examinations, the use of uniform examinations was accepted.

Many new examination centers were established and a changed emphasis in their organization occurred. Whereas in the past examiners offices and testing bureaus were made up principally of test construction specialists and statisticians, it was soon apparent that diminishing returns quickly reduced the effectiveness of sophisticated statistical analysis of ordinary test items. What was needed to achieve validity was an increased variety and sophistication within the test items themselves. In short it was better to teach an academic specialist a modicum of test theory rather than hope to have test specialists produce their own items or to help in analyzing mediocre items taken from examinations prepared by faculty members who had made little study of testing.

In a few institutions such as the College of the University of Chicago, the Basic College at Michigan State and the Lower Division at the University of Florida subject matter specialists prepare examinations under the direction of the examiner who with his assistants provide technical direction. Such a system, however, involves basing the grade of the student exclusively on the examination scores and represents a radical change in college organization. Such a revision involves much faculty opposition and introduces a system that may prove expensive. Most colleges with large enrollments use a system of uniform final examinations and in some instances uniform part semester tests under the direction of the department. Individuals within departments or small committees prepare the materials with technical assistance from an examiner or testing bureau.

Trends in the Development of the Examination Questions.

The modern objective examination not only seeks to make the examination more searching but it seeks to measure the ability of the candidate to deal with new material. Its present form is the result of several stages of development. The first objective type questions used were the true-false questions. The candidate determined whether a statement was more true

than false or more false than true. One objection raised to such items was that they did not involve sufficient recall. A student might know whether each of a series of statements was true or false but he might not be able to list a series of ten facts relating to a problem. Hence many types of objective completion tests were developed.

The present day objectives of liberal education tend to place less and less emphasis on both recognition and recall and place greater value on other abilities. We do not assume that our knowledge is static. To repeat back to the professor the content of his lecture is of limited and transitory value. More and more emphasis is placed on the ability of the student to analyse new materials and synthesize ideas from new materials. The outcome of education is not the mastery of specific content but rather the development of abilities that would be utilized in the analysis and synthesis of ideas in new content to the end that the student could improvise applications and ultimately, as his experience widens, to evaluate new ideas. Recognition and recall are not discarded by the newer examinations but they have become only preliminary steps to more important aspects of measurement such as analysis, synthesis, application, or evaluation of the ideas in question. An example of such a type of question taken from a sophomore test in United States History is given below. The quotation which follows is presumed to have not been read previously by the student.

"As may be imagined, the government of these widely scattered settlers between 1810 and 1845 was feeble, erratic, and fitful—presidents and dictators and congresses appearing and disappearing in agitations that shook Mexico from center to circumference. A policy adopted by one government was repudiated by the next; reforms well-conceived in spirit could not be executed for lack of power. Without capital and without stability, harassed by revolutions and debts, Mexico could not develop the resources and trade of the northern empire to which she possessed the title of parchment and seals. More than that, she could not occupy it for the simple reason that she did not have the emigrants for the enterprise."

1. The "northern empire" referred to in the quotation above was: (1) Texas, New Mexico, and California; (2) Texas; (3) Oregon territory; (4) Canada; (5) Louisiana. (*comprehension*)

2. James K. Polk would have: (1) disagreed with the author, holding that Mexico had developed its northern provinces more than the author has indicated; (2) disagreed with the author, holding that Mexico constituted a real threat to our naional existence; (3) agreed with the author of this quotation; (4) agreed with the author, holding further that it was the will of God for the United States to take over the northern empire of Mexico. (*knowledge and application*)

3. The reasoning of the quotation above suggests that in order to hold Alaska in our day, the United States should: (1) colonize and develop the resources of Alaska; (2) drop an atom bomb on Russian bases in Siberia; (3) erect a solid line of fortification along the Alaskan border; (4) seize Eastern Siberia before Russia can seize Alaska. (*application and evaluation*)

4. According to the quotation above, Mexico's greatest weakness

among the following was: (1) lack of natural resources; (2) lack of a stable government; (3) a desire to rule the world; (4) lack of a socialist economy; (5) too strong a pacifist sentiment among its people. (*analysis*)

5. The Abolitionists would have: (1) disagreed with the author, holding that the attack on Mexico was purely the result of the slave-holders desiring more territory; (2) disagreed with the author, holding that the attack on Mexico was a plot of the liquor interests; (3) disagreed with the author, holding that the United States should seize all of Mexico and free its slaves; (4) agreed with the author of this quotation. (*knowledge and application*)

6. The United States in the administrations of Tyler and Polk had: (1) never developed any capital; (2) developed considerable capital through textile and other manufacturers; (3) considerably less capital than Mexico; (4) kept up with Mexico in the development of manufacturing and a prosperous agriculture; (5) accumulated a great deal of capital, which was being effectively administered by the Second Bank of the United States. (*knowledge*)

(From General Studies 204a, Caldwell and Thacker, U. S. C.)

The studying processes of the student in preparing for questions such as these above has to change from various memoritorial procedures such as the recall of obscure facts for true false questions or the recall of long lists of facts for completion questions, to practice in developing general skills which will enable him to cope with new material. Modern examinations give a bonus to the student who really understands the subject, who broadens his knowledge by supplementary reading and who can apply knowledge to and evaluate new situations.

Perhaps it would not be unfair to say that in the past many teachers have made examinations to determine who should fail. This has been evidenced by sometimes excusing superior students from the examination altogether. Modern examinations are directed to measuring the degree to which the abilities of students have been developed in terms of course objectives. It is only among superior students that aims can be achieved to a maximum. To use the examination to determine failure is wasteful. No examination determines whom shall pass or whom shall fail anyway. All that an examination does is to rank students in order from high to low. The point of failure has to be determined by the judgment of someone. However even for purposes of failing students if we must, the adequate examination is more convincing to the student as he realizes his lack of insight into the questions.

The preceding discussion of examinations has concerned itself for the most part with knowledge, intellectual arts and skills and intellectual activity. Other broad areas remain such as manipulative or motor skills; emotional appreciation or sensitivity; interests, attitudes and values; and emotional and social adjustment. These latter areas have more recently received increased recognition in our curriculum planning.

Tests of mechanical and manipulative skills are for the most part apparatus tests and tend to increase in validity as they attempt to evaluate directly the utility of the skill or the quality of the end product. There is no better way to measure ability to play a musical instrument than to have

recognized experts listen to the quality of the performance. Probably we shall always have to depend upon judgments in our evaluation of all artistic performances.

Measurement of appreciation or sensitivity, attitudes, interests and values, and emotional and social adjustment are held back today not so much by a lack of technique as by the fact that we have not as yet developed a consistent psychological theory that can classify such educational outcomes and meet the criticisms of subject matter specialists and philosophers. There are today for instance no uniformly accepted definitions of such terms as attitudes, interests, or values. The difficulty arises from the belief that while these terms represent convenient classifications they may not be psychological entities within the make-up of personality. The problem is still further complicated by the belief of some that there may not even be relatively stable psychological entities within personality itself, but that the make-up of each individual is essentially unique. Such a position diametrically opposed to biological science seems to point up the difficulties encountered at our present stage of measurement. Until the time comes that we achieve a wider acceptance of a unified educational and psychological theory test builders must content themselves with classifications based upon convenient divisions of objectives such as skills, appreciations, attitudes, and adjustment as listed above.

Tests of appreciation, attitudes and adjustment in their commonest form as now used are self report questionnaires. The value of such tests however, varies with the cooperation received from the subject which varies more with the use to which the subject believes the scores are to be put than with the test used. For these reasons the values of ordinary pencil and paper tests are limited.

Test scores based upon opinions of judges who have observed the subject under standard conditions are not as widely used as present techniques would allow principally because of the work involved. As relatively simple a situation as an estimate of the ability of a college student to write a short theme has been found to require a minimum of two, three-hour themes each read by three readers to obtain a reasonably accurate result. Many other appreciations, attitudes and adjustments might require many times as much effort to measure. However until educational and psychological theory comes to better agreement on the nature of such categories progress will be slow and we shall have to depend upon empirical classifications, self report, and observation.

The modern examination in most colleges today is far advanced over the rather vaguely drawn tests of even a decade ago. The objectives of courses have been more carefully formulated. The curriculum has recognized intellectual skills and values far beyond recognition and recall. Broader aspects of personal development are included and appraised. The validity of examinations is being checked against objectives. The variety of items has been greatly enriched by subject matter specialists and the standard statistical techniques of test analysis are being applied as routine procedures.

Superior students report the examinations to be more valid, and the objectives of college education are becoming more meaningful to students.

Trends *in the* Evaluation *of the* Social Studies

By HOWARD CUMMINGS

Specialist for Social Sciences, U. S. Office of Education

IT is difficult to describe trends unless one takes the long view which facilitates a comparison of "what was" with "what is." Such a comparison involving evaluation practices in the social studies yields interesting results if a period of about twenty-five years is covered. What were the evaluation practices of twenty-five years ago?

In 1925 most social studies teachers made little or no use of standardized tests. Indeed it was not until about 1930 that the achievement tests published by the Cooperative Test Service, the Iowa Every-Pupil Testing Program and other similar agencies came into use. To be sure, there had been earlier objective-type examinations in such fields as United States history and American government, but these were not widely distributed. Some of the general achievement batteries which included a brief social studies section were fairly well established. Many social studies teachers also used results in reading comprehension tests to get some idea of how efficiently their pupils could read, and results on group intelligence tests to get some idea of how well they were likely to achieve in class.

That social studies teachers experimented with brief objective-type tests of their own construction—chiefly true-false, completion, and matching—cannot be denied. But these were poorly constructed and called for little more than the rote recall information. Most social studies teachers up to 1925 were still depending on essay-type questions and the term paper for help in evaluating the ability of these pupils to organize information and to react to issues and problems. Few teachers of that day made any systematic effort to appraise the ability of pupils to use study skills. Indeed the first Iowa Every-Pupil Test of Basic Skills was not published until 1933.

The following are typical items used in Objective-Type Tests—1925:

DeSoto first discovered the Pacific Ocean. (true false)

The Declaration of Independence was written by _____ in _____.

Dutch governor of New Amsterdam	1. Cartier
	2. George Rogers Clark
French explorer of the St. Lawrence	3. William Penn
	4. John Smith
Founded Pennsylvania	5. Stuyvesant

During the early 1930's testing programs designed to measure skills and understandings were developed for the social studies. For the most part the skills tested were related to understandings. In the field of map reading, for example, pupils were expected to locate places in terms of longitude, and latitude, and to relate a given location to other places in terms of distance and direction. Test exercises also were developed to test the ability of pupils to use an index and to interpret graphs and charts.

A second category of items was organized around the special vocabulary required in the course. Included in this category were special meanings of common words (bill, for example) as well as unique terms (ex post facto law, for example). The identification of great men with the institutions and movements of their time, of places and reasons for their importance, and other similar types of association may perhaps also be included in this category.

Chronological relationship was a third area for testing. In constructing chronology exercises a great deal of ingenuity was employed to provide devices which could be used to discover a pupil's ability to relate events to other events in any era characterized by great historical movements, and to test his ability to draw on an understanding of causation in arranging events in their chronological order.

The main effort of the testing movement during the early 1930's was to construct tests which would discourage rote learning and encourage the understanding of major concepts and of conceptual relationships in time and space. This was a step in the direction of functionalism, though of a narrow sort. The new approaches did little more than to test the ability of pupils to get meaning from maps, charts, and graphs, as well as from words. This was a period also when great progress was made in the technical improvement of test items and exercises. Test authors became very conscious of the importance of eliminating specific determiners and extraneous clues.[1]

The late 1930's witnessed a great expansion of the idea of what was functional. Skills for understanding were included in a larger cluster of skills which were needed for critical thinking in analyzing and solving social problems. The various steps used in solving a problem was the basis for specific tests. Skill in locating and using a wide variety of sources of information on a certain topic was one school objective for which tests were constructed. A second skill required was to decide what information was relevant to the topic and how valid this information was.[2] Reaching a conclusion by a proper use of evidence was a third skill to be tested.[3] A number of the tests in this area were developed as a part of the Eight-Year Study sponsored by the Progressive Education Association. In this study an effort was made to help the school staff evaluate its own program in

1 Hawkes, Herbert E., Lindquist, E. F., *and* Mann, C. L. *The Construction and Use of Achievement Examinations*, Boston, Houghton Mifflin Co., 1936.

2 *Interpretation of Data Tests 2.51, 2.71*, Princeton, N. J., Cooperative Test Division, Educational Testing Service.

3 Thoules, Robert H., *How to Think Straight*, New York, Simon and Schuster, 1939. (Glaser's test of critical thinking.)

reaching the objectives which the staff had stated.[4]

The following test item is designed to see whether or not pupils learned to pick out generalizations which are and are not supported by the evidence. The following is an example which illustrates this trend in test construction.[5]

Problem:

There are many different brands of consumer products on the market. For example, there are over 80 brands of breakfast food, 100 brands of coffee, 250 brands of tooth brushes, 160 brands of fountain pens, 60 brands of gasoline, 4,500 brands of canned corn, etc. The consumer has difficulty in choosing among these brands. He must weigh their relative merits as compared with the prices at which they sell. In order to help the consumer use his income most effectively and to promote more efficient use of resources, the government should test all consumer products, rank them according to their merit, and make these rankings available to the public.

Directions: Part I. For each of the following statements, place a check mark (√) in one of the columns labeled Part I. Place the check mark (√) opposite the number which corresponds to the number of the statement in:

Column A if the statement may logically be used to support underlined conclusion

Column B if the statement may logically be used to contradict the underlined conclusion

Column C if the statement neither supports nor contradicts underlined conclusion

Check each item in only one column. In case of doubt, give the one best answer.

In this part of the exercise, assume that each statement is true.

(B) 1. Many brands of foods are not accessible to everyone.

(B) 2. Seals of approval from such organizations as the Good Housekeeping Institute are adequate guarantees of the quality of the product.

(B) 3. Labels and nationally known brand names give all the information a customer needs in order to make an intelligent choice.

(C) 5. The government prefers not to publicize by brand names the results of the investigation of the Bureau of Standards.

(A) 6. At present there are no reliable sources of information about consumers' goods other than those few included in government reports.

(A) 16. Low standards of living are often due to unwise expenditures of the income received as well as to inadequate incomes.

(B) 20. Consumers get enough reliable information to choose products wisely either from advertisements or from manufacturers' testing bureaus.

Exercises of this type were used to test the ability of the pupil to interpret data presented.

This phase of the testing movement in the social studies received considerable impetus when the problem of accreditation for educational experi-

4 Smith, E. R., *and* Tyler, Ralph W., *Appraising and Recording Student Progress*, New York, Harper & Bros., 1942.

5 Anderson, Howard R. (ed.), *Teaching Critical Thinking in the Social Studies*, Washington, D. C., The National Council for the Social Studies, 1942. pages 155-156.

ence obtained in military service arose during World War II. The USAFI test for *Interpretation of Reading Materials in the Social Studies* was an example of a test developed for this purpose.[6] The approach used in this test was to provide reading selections and questions which tested not only the pupils' ability to read and interpret what he had read, but also his ability to recall and use related information regardless of how or where it had been acquired. This approach was in sharp contrast to that used in earlier tests involving the use of reading selections (reading comprehension tests, for example), where the pupil was warned not to use information in answering questions that was not provided in the selections themselves.

This type of test seemed especially valid for evaluating the educational experience of GI's who had long been away from the classroom and could not be expected to recall a great deal of highly specific course content. Since this test, though it placed primary emphasis on the ability to interpret what was read, made it possible for the GI to draw on what he had learned and remembered, it encouraged the type of mental alertness which is desirable in a democracy. Consequently, it soon was recognized that this type of test could be used to serve other purposes than that of providing a basic standard for the equivalence of a high school diploma, the original reason for its development. This movement to test for general educational attainment had first been used in the 1942 Fall Testing Program for Iowa High Schools.[7] The USAFI program made it a national movement.

Parallel with the movement of shifting the emphasis in social studies evaluation from information to the interpretation and use of information was another movement to evaluate attitudes and traits of character and personality. It was recognized that these influenced interpretation and to some degree motivated or inhibited the making of decisions and the carrying of these decisions into action. A pupil must first of all become interested in a social problem and come to feel that the solution of the problem was his business. His use of data depended not only upon his skill in finding the data and reading it but upon his attitude toward men and institutions. He must hold himself ready to reconsider any problem if new events brought new evidence which was pertinent. His success in thinking through the persistent and recurring problems of our society would depend upon his intellectual stamina. He must be made aware of his prejudices for and against people and social institutions. Reaching a sound conclusion demanded a balance between caution and optimism. Finally whether or not he acted on the decision would depend in part upon whether he was energetic or apathetic. Interests, attitudes, openmindedness, awareness of his own previously held views, and willingness to translate such views into action were objectives stated by the schools. Attempts were made to make instruments which would evaluate the growth of these qualities as the pupil worked through successive years of school experience.

The final goal of evaluation was seen as a prediction of behavior which might be modified as the result of ex-

6 United States Armed Forces Institute Examinations, Princeton, N. J., Cooperative Test Division, Educational Testing Service.

7 Iowa Tests of Educational Development, Chicago, Science Research Associates.

periences in the social studies field. This new view did not in any way deny the value of previous accomplishments in the testing fields. It included them in a broad framework of purpose and each type of test was used for measuring specified outcomes which the broader purpose needed in terms of specific skills, understandings, and changes in attitudes. Reading skills, interpretation skills, concepts, critical thinking ceased to be ends in themselves. They became means for developing an intellectual and rational approach to the problems which individuals must solve to live together with mutual happiness and profit. The end product would go beyond a sound decision arrived at by the proper use of information thoroughly understood. Such a decision should be followed by a personal commitment to help implement the decision, if the pupil believed in its essential soundness. The fact that a personal commitment might involve risk or certain sacrifice should not be a bar to such action.

The broader purpose of evaluation to determine changes in behavior suggested a new way of using tests. No longer were they to be reserved for the end of the course and used to measure achievement. A more logical place for such testing was at the beginning of the course to make an estimate of the abilities which the pupil had. Pupil and teacher could then plan together experiences which could provide opportunities for strengthening specific weaknesses which the tests might reveal. Through the year the pupil could learn to use the library, if the test revealed that he did not know how to make full use of it, and his objective of going to college convinced him that the skills were needed. If the pupil reacted emotionally to words and phrases, the devices of the propagandist could be studied to help him to consider data more rationally. Experiences could be planned on the level of development revealed by the instrument of evaluation whether it be a test or inventory of interests and attitudes. Different forms of the same instrument could be used at later periods to help assess development.

In order to make the most effective use of tests in an evaluation program definite objectives for education had to be stated and instructional programs organized for reaching the objectives. Skills and attitudes which had long been recorded as valuable had in many cases developed, it was hoped, as by-products of the instructional program. Over the last ten years there has been less progress in stating objectives in specific terms that could be tested than was expected at the beginning of the decade. Still less has been done in organizing instruction to reach objectives when they have been stated in specific terms. It is unfortunate that advances in both methodology and evaluation in the last ten years have not been coordinated along the line of reaching objectives for which tests are available.

The last thirty years have seen a large growth in the field of evaluation and in the field of method. It is unfortunate that these advances, both based on the same changes in points of view in psychology have not been coordinated. This lack of coordination arose perhaps from the initial practice of leaving testing until the end of the instructional period. Specialization in methodology and evaluation opened a gap which will have to

be closed to bring to the pupil the full benefits of the evaluation program. That this program is incomplete and that its improvement calls for years of hard work ahead does not mean that the classrooms should await its future perfection. There is accumulating evidence that evaluation programs, as they now stand, can make many important contributions to method. A recent publication, *An Evaluation of Citizenship Education in the High School,*[8] was carried out by the Institute of Citizenship, Kansas State College, Manhattan, Kansas. The situation in a group of high schools included in the Kansas study is summarized as follows:

It was found that some progress was being made between grades 9 and 12 in acquiring knowledge, the growth in skills was not very great, attitudes were not greatly influenced, and many high school pupils had not acquired the habit of keeping up with the news. Three reasons were given in explaining why the outcomes were not more favorable:

1. Consideration of course objectives was not a continuing and vital concern. In the past these schools had not formulated outcomes in terms of behavior changes.

2. Concern over outcomes was limited largely to the area of knowledge or information slighting other areas such as skills.

3. Periodic check-ups had not been made of the extent to which pupils were progressing toward the desired objectives.

One of the recommendations made by the study is for "evaluation which is continuous and which seeks to provide evidence on student progress toward the full range of objectives, which evidence can then be used as a basis for cause and curriculum revision."[9]

There has been a trend to bring evaluation and teaching closer together by publishing large numbers of test items from which teachers could choose those items which they believed tested their objectives. An increasing number of teachers have made their own tests relying on published items for part of the test and supplying their own when such items did not furnish a complete test. The growth of the cumulative record has encouraged a closer relationship between testers and teachers. Such a record has frequently required anecdotal reports which the teacher must write from her observation of pupil behavior. All of these exercises, many of which require the cooperation of the entire school staff, have helped to broaden the teacher's concept of evaluation and increased her insight into the problem of the role of educational experiences in changing behavior.

8 The Kansas Study of Education for Citizenship, *An Evaluation of Citizenship Education in the High School*, Manhattan, Kansas, Kansas State College Press, 1950.

9 *Ibid.*, p. 34.

New Developments *in* Evaluating Achievement *in the* Public Schools *of* Los Angeles

By ALFRED S. LEWERENZ
Head Supervisor, City School Districts, Los Angeles, California

THE Evaluation Program of the Los Angeles City Schools was established by the Board of Education in the fall of 1945 in order that pupil growth toward the objectives of the curriculum might be measured.

Evaluation is much more clear-cut and specific when the goals themselves are well defined. Last year the areas of instructional emphasis were set forth in a city school publication entitled the *Point of View*.[1] In this publication appear broad educational goals covering all grade levels. These goals were agreed upon after long discussion with many representatives of teaching and lay groups. The areas of instructional emphasis have been described in terms of desired pupil behavior. Though the *Point of View* represents a master plan, teachers of each grade level make their own applications of these objectives in terms of the maturity levels of their pupils and the subject matter taught.

I. *The Point of View as a Basis for Evaluation*

The *Point of View* since last year has become a point of departure in setting up evaluative situations. Now it is possible to talk in terms of specific behaviors when embarking on the evaluation of a given area such as "Citizenship." The *Point of View* thus becomes the guidepost either in the purchase of a ready-made test or the building of a new examination where no measure is now available.

Evaluative procedure is based upon at least four preceding steps. These are:

1. Defining an instructional objective.
2. Setting up the educational experiences and materials necessary to attain the objective.
3. Determining the pupil behaviors which indicate successful instruction.
4. Selecting techniques for measuring growth or changes in behavior as related to the specific goals.

Such a process brings the curriculum maker and the evaluator into a sort of partnership. Ideally each writer of a curriculum unit should also provide the content for evaluative devices to be constructed by the test expert. If such a process is followed, there can be little question as to whether the test fits the curriculum. It is also good procedure from the standpoint of the curriculum writer, as he is more apt to produce down to earth units which produce tangible results.

1 Point of View, Los Angeles City School Districts, Publication No. 470, 1949.

II. *The Nature of the Present Testing Program in Los Angeles*

The testing program of the Los Angeles City Schools is based upon the idea of continuous and repeated measures of behavior during the entire public school experience of the pupil. Areas of measurement, in so far as it is possible, are in harmony with the areas of instruction as now established by the *Point of View*. In the event that suitable measuring instruments are not available through test publishers, the Evaluation Section attempts to construct the measure desired.

At the present time there are four general types of testing program in the Los Angeles City Schools. These are:

A. *The Evaluation Program*, which is a city-wide coordinated program reaching from first through the twelfth grade. It, in general, measures intelligence as well as pupil achievement in the basic skills. Beginning with Grade B1, pupils are tested every two years for mental ability. In the third grade, subject tests begin with emphasis on reading vocabulary and reading comprehension. In grades four through nine, each pupil is tested at least once every two years with an achievement battery including tests for reading vocabulary, reading comprehension, arithmetic reasoning, arithmetic fundamentals, and language skills. At the senior high school level, students are tested with an even more comprehensive battery of educational development tests.

Chronological age and intelligence are used in combination to establish an Expected Chronological Grade Placement and an Expected Achievement Grade Placement for each pupil.

All tests provided to schools for use with the official Evaluation Program are paid for out of a special fund set up annually for the Evaluation Section by the Budget Division.

B. *The Supplementary Testing Program* which is comprised of the optional testing done by schools to supplement the Evaluation Program. It may include more frequent testing in the same subject fields as covered by the Evaluation Program or it may utilized additional measures, for example, interest inventories used in connection with the guidance program. Such tests are paid for by schools out of their own budgeted funds for Supplies of Instruction.

C. *The Superintendent's Common Essentials Tests* constitute measures of facts, knowledge, and skills. These tests are specially constructed in certain specific areas and are based on the local instructional program. They are administered at terminal points, particularly in the elementary and secondary schools. These tests are paid for by the Central Office.

D. *Tests of the so-called "Intangibles"* are experimentally being tried out as measures of pupil progress in areas other than the basic skills. These measures are, for the most part, sociometric devices and most of the experimenting is being done at the elementary school level.

The discussion which follows concerns recent developments in the four programs mentioned above.

III. *Developments in Evaluation Program Techniques*

Recently considerable attention has been given to making test results more meaningful to all concerned, including the parent, pupil, teacher, principal,

supervisor, and superintendent. To this end, the results of the basic testing program are aided, supplemented and interpreted in a variety of ways.

A. Teachers relieved of clerical work in test scoring

Beginning with the fall term of the school year 1950-1951 at the elementary school level, the intelligence and achievement tests are scored by the teachers but clerical aspects of the work, such as recording test results on data sheets, are completed by special clerks. These clerks are assigned to schools on a rotational basis for an average time of two weeks and their activities are limited to work connected with the Evaluation Program. This procedure was innovated to relieve teachers of work which did not materially add to an essential knowledge of their pupils. The time thus saved by teachers can be utilized in a more complete analysis of the pupil personnel data for the better adjustment of pupils and the improvement of instruction.

B. Staggered testing program

Elementary school tests are administered during the fall term and secondary schools, both junior and senior high, give their tests during the spring term.

At the elementary school level, testing for the first time this year is on a staggered basis. This change has been made to avoid peak loads at the Tabulating Machine Services Section and to reduce the number of clerical workers needed in schools at any one time. Testing is spread over a period of one semester by testing one grade each month, for example:

Month	*Grade*	*Subjects Tested*
September	I & III	Intelligence, B1 and B3 Reading, B3 and A3
October	IV	Achievement Battery, A4
November	VI	Achievement Battery, B6 and A6
December	V	Intelligence, B5 Achievement Battery, A5

When tests have been scored, either by hand in the schools or by machine at the Central Office, the results for the sub-tests are recorded on a *Pupil Educational Data Sheet.* Also on this sheet, in addition to pupil name, are recorded grade norm, chronological age, intelligence quotient, expected achievement grade placement and any significant observations or comments.

The grade norm is a more exact statement of grade level at the time the tests are administered. For example, tests given the last week in October in low six or B6 as it is termed in Los Angeles, would have a grade norm of 6.1.

Chronological age is recorded in years and months as this form seems to have more meaning to teachers than when given in months.

The Educational Data Sheets from each school are sent to the Supervising Counselor concerned, who inspects them for completeness and accuracy. After being checked, the Educational Data Sheets are forwarded to the Tabulating Machines Services Sec-

tion. Here an IBM tabulating card is cut for each pupil, incorporating in a code form all data submitted except the comments. It is then possible with the aid of the sorter, alphabetical counting machine, calculating punch, and the graphic item counter unit on the test scoring machines to manipulate and present the data in a variety of ways.

C. Scattergrams

Out of experimental work started in 1948 have come machine-made scattergrams for the better interpretation of data and easier identification of problem cases. The first step leading to the machine-made scattergram was the devising of (a) Group Analysis Chart. The charts were prepared on 18″ x 20″ paper mounted on cellulose building board for ease in the use of map tacks. The chart utilizes a grid of 400 squares formed by the intersections of twenty columns and twenty rows. The columns represent percentile for academic achievement in five per cent intervals. The rows indicate percentile of academic aptitude (IQ) also in units of five per cent. The percentile for academic aptitude is based on the distribution of intelligence quotients for the junior high school grades in the Los Angeles City Schools. These data are felt to be most satisfactory, as at the elementary school level about half the pupils of 75 I.Q. or below, are placed in special education classes where the regular surveys do not reach them. At the secondary level many retarded pupils have dropped out, giving an average intelligence somewhat higher than that of the total population.

The percentile of academic achievement is ordinarily that for a composite or average of all tests in the achievement battery, though for a particular purpose it might be the percentile for a sub-test, such as arithmetic fundamentals or reading comprehension.

It is thus possible with the aid of a map tack to indicate a pupil's relative position on the grid with respect to other pupils in the grade or class.

Diagonal lines aid in interpreting a position on the chart as they designate areas of varying ability. For example, the lower left and upper right corners include the cases in the lowest and highest five per cent respectively. A line drawn from lower left to upper right establishes a normal expectancy zone. At any point on or near such a line, a pupil's test results approximate his mental ability. When a school grade has been plotted on a "Group Analysis Chart" it is possible by inspection to note several trends, represented as answers to such questions as:

1. Are the bulk of the students distributed fairly compactly on either side of the normal expectancy line or do they tend to concentrate above or below the line? If above, the pupils probably are doing better than expected and if below the line, the supposition is that the pupils are not working up to capacity.

2. Are the pupils about equally divided between the lower third, middle third, and upper third of the chart? If so, achievement is normal. If they tend to be in the upper third, then pupils are achieving higher than is average for the nation. The opposite is true if the majority of students are in the lower third section of the chart.

Getting a third variable, such as average subject mark or age, on the chart was made possible with the use

of colored map pins. For example, green pins could mean a desirable situation, blue pins an average or good condition, while a black pin would point up a low or bad situation. Additional intermediate colors can provide more steps in the scale of values. Likewise, sex of students, the nature of their interests, their high school majors, their vocational goals, etc., can be shown by an appropriate color code. This use of colored pins to indicate a third variable made it practical to point up pupils with special problems. When clerks recorded pupil numbers adjoining the pins, it was possible to identify the pupils in order to initiate case studies. With these developments a counselor, by scanning the chart, could note individual pupils of specific types, among them the following:

1. Very high in achievement and intelligence but receiving poor marks.
2. Very low in achievement and intelligence with poor marks.
3. Very high in achievement but apparently of low intelligence.
4. Very low in achievement but apparently of superior mental ability.

Back of such accentuated cases may lie behavior difficulties, clerical errors, incomplete test results, incorrect placement and a host of other possibilities which only a closer look into the pupil's case will reveal.

Use of the pin charts was limited by the amount of clerical effort needed to plot the results. This fact resulted in efforts being made to adapt the plan so that it could be produced by machine methods. Through the combined efforts of the staff of the Evaluation Section and the Tabulating Machines Services Section, a machine scattergram was produced. This new scattergram has all the good points of the pin chart and, in addition, has several innovations. For example, it is now possible to indicate for each pupil his identification number, his intelligence quotient, and some variable, such as age, or average school mark derived by the calculating punch.

Scattergrams are now run for certain grades tested at the junior and senior high levels and have been run experimentally for one grade at the elementary school level. Listings are likewise made of pupils who are high in intelligence and in achievement in order that they may be counseled in connection with scholarship opportunities and for checking as to the adequacy of their progress. Lists also are made of low scoring pupils for use in connection with selection of candidates for special education type training, and cases of marked chronological acceleration or retardation are noted for possible adjustment.

The use of scattergrams in secondary schools has helped to direct attention to individuals in need of help prior to their becoming dissatisfied with school and dropping out.

D. Item analysis

Considerable use of item analysis has been made to point up possible instructional strengths and weaknesses. By the use of the graphic item counter, it is not difficult to find for each test item the number of pupils who were able to answer it correctly. With the help of a curriculum expert, it is possible to learn at about what grade level in the local curriculum a given item is taught. It is also feasible from the norm data to learn the approximate grade placement value of

the item according to the publisher's manual.

With the information given above, it is a simple matter to discover those items which represent strengths and weaknesses. An item taught in grade A4 which represented an achievement of grade B5 on the test and which 90 per cent of the A4 pupils did successfully would represent an area of strength. On the other hand, an item taught in A4 which on the test places at about 4.8 and which was passed by only 12 per cent of the pupils in the A4 grade, would indicate an area of probable weakness in the instructional program.

The above procedure can be made even more effective when there are available representative data of a comparable sort from the original norming population. With such figures, one set of data can be plotted against the other in ascending order of difficulty for the local population. The variations between the two graph lines reveal at once those items which are either strong or weak in comparison to the criterion group.

Such an item analysis can help also to check on whether either the test or the instructional program is omitting important content. Item analysis likewise can be adapted to the task of helping individual students locate areas in which they need improvement. Item analysis reports in the hands of subject supervisors provide the means for improving the quality of teaching in their fields since these data reveal the specific areas which are not in line with acceptable standards. For example, such reports may show that, in general, pupils do not know how to interpret simple graphs or that they do not fully understand the use of the unabridged dictionary as a source of information. The answer may be the use of more graphs in mathematics classes or the purchase of additional dictionaries for schools so that they may be more accessible to pupils. Failure of students to do items not pertinent to a local situation can be appropriately taken into account in interpreting total results.

IV. *New Tests Connected with the Supplemental Testing Program*

To meet local needs several tests have recently been built or are now under construction. This series is known as the "Curriculum Tests in Basic Skills" and includes measures in the areas of arithmetic, spelling and chemistry.

The C.T.B.S. tests in arithmetic were worked out cooperatively with a number of school districts in Southern California. The items used represent content covered by a majority of the school systems in their own courses of study. The tests contain content taught up to but not beyond the grades in which they are administered. Items are scaled for difficulty not by going beyond the grade but by increasing the difficulty of the concept. Tests have been built for grades III through VIII and include two forms for each grade. Tests can be hand scored at all grade levels or machine scored in grades IV through VIII if desired. The norms are based on the populations of the school districts involved. The tests were designed more for helping teachers to diagnose pupil needs rather than for general survey purposes.

A C.T.B.S. test series recently completed is an elementary school spelling sequence which is based on the Los

Angeles curriculum and the state spelling series *Using Words*. There are two forms of this spelling test for each quarter of the school year from grade III through VI. It, too, uses no word beyond the grade point at which the test is administered so the test is more a measure of words actually taught than of the total spelling ability of a pupil. Its purpose is to make sure that pupils attain mastery of a specific list of words as they progress through school.

At the secondary level two new spelling tests are under way. The words were received from all of the teachers at the secondary level. Each teacher listed five words, one word to a tabulating card. The words chosen were on the basis of sufficient importance that students should be able to spell and use them. With the aid of the alphabetical punch and the sorter, it was possible to make up a junior high school and senior high school list by subject areas.

The plan is to have each teacher responsible for teaching the spelling words related to his subject. Pupils will be tested at the beginning and end of the semester to indicate initial needs and final mastery.

Another C.T.B.S. test is one in the field of chemistry which has been cooperatively developed with the help of science teachers. It will be a check on chemistry instruction as set up in the Los Angeles curriculum.

V. *Measures Built for the Superintendent's Common Essential Tests*

During the past year a series of brief tests have been built to test pupils at the A6 and A12 levels on basic facts, knowledges and skills. The tests have been scored to ascertain the percentage answering each item correctly, as well as to give a distribution of total scores. These short tests have served a dual purpose. One function has been to discover those pupils with less than a reasonable attainment, for whom remedial work is recommended. A second purpose is to acquaint the public with the achievement of the pupils. The content of each test has been printed in the daily papers and lay groups have had the opportunity of trying the test themselves. Typical of the tests made for terminal testing are one on filing and indexing, one on spelling and another on arithmetic.

VI. *Experiments in Measuring the "Intangibles" of Education*

Considerable experimental work is being done to measure pupil progress toward some of the objectives listed in the *Point of View* other than the basic skills. These measures are utilizing group projective techniques, paired comparisons and new forms of rating. A report of these sociometric devices appears in a current publication.[2]

VII. *Devices for Making Pupil Personnel Data More Effective*

It is the purpose of the Evaluation Program to make pupil personnel data meaningful to teachers and students. To this end several developments have recently been made, particularly at the secondary school level.

2 Horn, Alice and Lewerenz, Alfred S., "Measuring the 'Intangibles' in Education," *California Journal of Educational Research*, I:147-153, September, 1950. (The second half of the article will appear in the November issue.)

A. Educational Guidance Record Booklet

At both the junior and senior high school levels the guidance program incorporates the use of an Educational Guidance Record Booklet which forms the nucleus of a series of guidance experiences. As part of the student's self-analysis of his own interests, and abilities are included spaces for the recording of significant objective test data particularly those derived from subject achievement tests.

B. Tear-off record

In order to get the achievement data to teachers, two new devices have been utilized. First, the preparation of a sheet which constitutes a set of six tear-off slips each one bearing the names of the tests used in the achievement battery. In a home room class, under the guidance of the teacher who furnishes the basic data, the pupil fills out all six forms of the slips with the data that pertain to him. He thereby becomes well acquainted with his own status on the several tests. The student, then, as he visits each of his classes tears off a slip and leaves it with his teacher.

C. Roll Book

The second new device has been to put in the teacher's roll book a page bearing the same headings as on the tear-off slips so that opposite each pupil's name the teacher can list the test data received from his pupils. This practice saves the teacher the necessity of going to the counselor's office in order to get the necessary data.

D. Cumulative Record

Tying in directly with the roll book, and the report card, is a cumulative record. In this permanent record file of all students' work are placed the achievement test data each year. In some cases data are recorded on a form available for this purpose. In the case of a data card furnished by a test service, this card is stapled to the cumulative record. It is possible, therefore, to check progress in reading or in mathematics, for example, over a period of years.

In summary it may be said that the techniques for determining the nature of achievement tests at all grade levels and getting these tests scored and summarized may be considered. However, the problem still remains of making certain that principals and teachers use these data fully. Our next efforts will be devoted toward developing better methods for obtaining the greatest value from the excellent tools now available.

A Four-Year College Curriculum *in* General Education

By HOWARD TAYLOR
Dean of the College,
Oklahoma College for Women

BY the end of World War I, American colleges began to sense the need for re-evaluation of college courses and educational objectives in higher education. In the liberal arts colleges, four fairly well-defined types of orientation courses were developed. They were: (1) courses designed to adjust the student to college life, such as College Aims; (2) courses giving the historical background of contemporary civilizations; (3) courses dealing with contemporary problems of citizenship; (4) courses in reflective thinking. Introductory survey courses in the sciences, literature and other fields were added to the program of study.

The group elective plan with one major field of study replaced in a large measure the older and more rigid major and minor requirements for a liberal arts degree. A new philosophy of higher education was gradually emerging. At Oklahoma College for Women, as early as 1925, the faculty began to think of the college curriculum in terms of social institutions rather than from the point of view of departments of subject-matter. The freshman requirements, other than the basic courses in English and health education, were centered about the five fundamental social institutions: the home, the school, the church, the state, and the vocation. On this foundation, the student developed a college program in terms of a major field of study correlated with courses selected from each of the following rather well-defined groups of subject-matter: language and literature, natural sciences, social studies, and the fine arts.

The influence of tradition still retained as requirements for a liberal arts degree two years of foreign language and a one-year basic course in a laboratory science. Students who had had a laboratory science in high school could escape the college science course by taking mathematics for two semesters. Astronomy was included in mathematics, largely because it was taught by a professor of mathematics.

A number of forces were at work throughout the nation which finally brought pressure on the colleges in several indirect ways. Moon-light schools, increased interest in night schools and extension courses for adults, psychological studies of adult learning, and other diverse factors stimulated a demand on the part of many mature persons for college education.

Oklahoma College for Women began to feel the pressure from older women, some of whom had not completed high school work, but all eager

to enter college. They were willing to make up entrance deficiences in order to qualify as candidates for a college degree. These women were primarily interested in becoming educated citizens. They were not seeking vocational training or planning to do graduate work to qualify as specialists in any field. They wanted the breadth of culture, the enrichment of life, and the liberty of mind which they believed to be the essence of a liberal education.

These older women entered into the regular work of the college with some trepidation but much enthusiasm and great determination. When they were confronted with the tedium of laboratory work in science and the relative drudgery of beginning foreign language, the trepidation increased, the enthusiasm waned, but the determination persisted. They began to ask the usual embarrassing questions. Why must they take this course in laboratory science since many good colleges do not require it for a degree? Why should they study any foreign language when all they get out of it is an incomplete knowledge of its grammar, little or no facility in speaking it, and limited reading of its literature on about the same level as the material their children use in the third grade. In the minds of these mature students, the little tales about Pierre and Marie or Juan and Maria, as the case may be, are comparable to Peter Rabbit and Little Red Riding Hood.

Frankly, why should they spend their time on such material when they could gain so much more from other work in science and in world literature. There are at least two theories concerning success in foreign language and science. One is that these subjects, because of their inherent difficulty, are a fair measure of ability to do college work. To remove them as requirements is to lower standards and cheapen college work. The other theory is that interest rather than ability determines success in these subjects. Therefore, they should not be required of students who can spend their time more profitably on other subjects. A beginning language is one of the few things feeble-minded children can learn. The high-grade imbecile will even learn to read, if given enough time.

Colleges have generally evaded the issues involved in fixing requirements for degrees. Practically every beginning course offered in colleges of liberal arts is required by one college or another, and every one of these same courses is not required by some other college. As a consequence, when Oklahoma College for Women was confronted by the questions of these earnest women seeking a liberal education, the faculty reverted to the educational philosophy which had guided in the revision of the freshman requirements. It was decided to formulate a four-year course of study in terms of the social needs and cultural values of contemporary life.

One of the first questions that the faculty wanted to answer was what degree would be granted for the completion of such a course. Serious and effective objection was made to giving a Bachelor of Arts or a Bachelor of Science degree for such a mongrel type of course! Finally, for no reason more logical than no one seriously objected, it was decided to grant the degree of Bachelor of Social Science to those who completed this four-year program in general education. Since

many colleges grant a Bachelor of Arts degree to those majoring in science, a Bachelor of Science degree to those majoring in music and other arts, or a Doctor of Philosophy degree to students who have never had a single course in philosophy, the faculty felt that the Bachelor of Social Science degree was adequate, even if not accurately descriptive.

The first program of studies approved for this new degree was rigidly planned. In the freshman year, the student was required to take physical education, English composition and a six-hour orientation course in social institutions, called Euthenics 1. The freshman-sophomore requirements were American history and government, hygiene and physical education.

In addition to these fixed requirements in the first two years, there were 70 hours of departmental requirements consisting of specified courses, all related to one or the other of the basic social institutions or in the field of humanities. Biological and physical science, mathematics, history and government, economics and sociology, home economics, education and psychology, philosophy, literature and speech were all represented in these departmental requirements. This curriculum in general education may be summarized as follows:

Requirements in the Freshman Year	14 hours
Requirements in the Freshman-Sophomore Years	10 hours
Departmental requirements	70 hours
Junior-Senior Elective Courses	16 hours
Free Elective Courses	14 hours
	124 hours

Students were encouraged to elect private lessons in a fine art in addition to the above prescribed work.

The fear on the part of the faculty that students would tend to avoid difficult and substantial courses was the reason for prescribing such a large number of required courses. After the new curriculum had been available for a few years, this fear subsided and the number of hours of required work was reduced from 94 to 77. But all electives still had to be chosen with the approval of the dean.

After several students had completed the work for this degree in general education, it became evident that this new curriculum was not in any sense a second-rate program to accommodate students who were not capable of pursuing the regular courses leading to a Bachelor of Arts degree. Not only did the older women elect this course, but many of the more capable students just out of high school chose this general educational program. Some went on to earn graduate degrees and enter the field of teaching or social work.

The next revision of this program came with a clearer understanding on the part of the faculty of the implications of general education; the realization that genuinely liberal education, over a period of four years in college, also has vocational value. It was now admitted that "cultural" and "useless" are not synonymous; that "liberal" and "vocational" are not necessarily contradictory.

At present the curriculum leading

to the degree of Bachelor of Social Science is outlined as follows:

As the degree of Bachelor of Social Science implies, emphasis is placed

A.	Requirements in the Freshman Year		10 Hours
	Freshman English	6	
	Social Fundamentals	2	
	Physical Education	2	
B.	Requirements in Freshman-Sophomore Years		10 Hours
	World History	6	
	Hygiene	2	
	Physical Education	2	
C.	Departmental Requirements		50 Hours
	Language-Literature Group	10	
	Science Group	10	
	Social Studies Group	24	
	American History and Government	6	
D.	Elective Courses		54 Hours
		Total	124 Hours

All electives must be chosen with the advice and approval of the dean. While the number of elective hours, fifty-four, is relative large, this provision makes it possible to adapt the program to the individual needs of each student. This is especially important to students who enter with advanced standing. Furthermore, this provision that each student must be guided by the advice of the dean is assurance that the fundamental purpose of this program in general education will be accomplished.

It is the responsibility of the dean to see that every student elects the work that will assure a well-rounded liberal education. Emphasis is put upon the humanities and the fine arts. As a general rule, all candidates for the Bachelor of Social Science degree must develop some proficiency in public speaking. Work in speech improvement or correction is advised for those who need to improve their speech habits.

upon the social studies. The normal, wholesome activities of an educated woman in community life serve as a guide in rounding out the four years of general education. Study clubs, musical organizations, parent-teacher groups, civic and church work, and recreation, as well as the many phases of home life, are all a part of the objective of general education as conceived on the campus of Oklahoma College for Women.

One important question is whether or not a four-year course in general education meets an actual need of college students. From the record of the past twelve years, it seems that it does. The first four Bachelor of Social Science degrees were granted in 1938. In 1949, eleven such degrees were granted. In all, fifty-six Bachelor of Social degrees have been granted. During the same period of time the college granted other degrees as follows: Bachelor of Arts, 519; Bachelor of Science, 467; Bachelor of Music

Education and Bachelor of Arts in Music, 95; Bachelor of Music, 59; Bachelor of Arts in Speech, 40.

Since twelve departments offer majors leading to the Bachelor of Arts degree, there is an average of 43 degrees for each department. There are nine major fields leading to the Bachelor of Science degree, which is an average of 52 degrees for each field. During the period of time under consideration, the Bachelor of Music Education degree has been discontinued and replaced by the Bachelor of Arts in Music. A total of 95 students completed the work in the five fields leading to one or the other of these two degrees. This is an average of 19 degrees in each field. These averages are by no means exact, since more studnts majored in some departments than in others. They do show, however, that in the twelve years under consideration, the 56 Bachelor of Social Science degrees satisfied a need comparable to those met by other courses of study.

The interest of students in this four-year program of general education and the records of the graduates who have completed the course have convinced the faculty of Oklahoma College for Women that this curriculum is educationally sound. It is now no longer experimental, but an established part of the program of the college.

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Education *for* Work--
A School Service

By ARTHUR K. GETMAN
Assistant Commissioner for Vocational Education,
New York State Education Department,
Albany, New York

NEARLY three hundred citizen committees cooperating with responsible school officials are working for better schools. Laymen are beginning to realize the critical and urgent need for adequate buildings, adequate salaries and improved courses of instruction for keeping up the greatly weakened morale of teachers. Noting the tragic plight of public education in many communities of the nation, these leaders are setting up a two-way channel so that school people and influential citizens can exchange views and secure the kind of education our youth should have. This laymen's crusade already has produced valuable results. As a phase of this movement, it is the purpose of this article to examine our vocational education facilities, in the light of the present structure and needs of American society and to suggest goals for achievement if we are to have strength and unity in a growing industrial democracy.

Our free public schools endeavor to interpret the aims and ideals of American life and to perpetuate the means and methods of democratic living. Through vigorous study and creative planning, we have come to regard our schools as centers of activity in living. Their effectiveness, therefore, should be measured not in terms of abstract theory but in terms of the needs and changes in the affairs of the community and of the nation.

The American people seem agreed that the ideal of equality of opportunity should extend to *all* youth for all types of education that will enable them to share in the good life and to become good citizens and occupationally competent workers. To achieve such an objective, we should agree on certain premises. Education is a social process and schools are social agencies. To my mind, it is clear that we should expect our schools to prepare youth either to enter a junior or senior college or to enter successfully upon and to make satisfactory progress in a vocation. Education for work should be geared to the future prospects of employment. It is dangerous to have young people of intelligence, imagination and skill forced into jobs entirely different from the fields for which they were prepared. In view of increasing enrollments and the wide variation in pupils' needs, interests and aptitudes, coupled with the divergent requirements of agriculture, industry, business and the professions, the modern high school faces both a challenge and great difficulty in providing services that will meet both the needs of society and the individual.

It is helpful to think of the activi-

ties of human beings as dealing with (a) the specialized duties of a vocation and (b) the unspecialized duties in such fields as citizenship, mental and physical health, home and family living, recreation, association, communication and relation. The preparation for specialized duties is clearly vocational, technical or professional education. Pupils enrolled in a vocational curriculum study English, social studies, science and health in common with all high school pupils. The outcomes of the studies in the unspecialized fields include the ability to use the tools of reading, to speak and write correct English, to understand science in its everyday applications, to appreciate the practical and fine arts, to know history and our civil institutions and to think critically on personal and social problems.

The Educational Ladder

Education is like a ladder; each rung is a forward step in reaching an educational goal leading to opportunities for work and for a happy and useful life. Out of fifty years of thought we have added more and more rungs to the ladder and more and more pupils have climbed higher and higher. The enormous rise in enrollments in schools and colleges is too well known to need emphasis here. Guiding pupils so that they may remain on the ladder for as long a period as will enable them to move from the discipline of the school to further schooling or to the adjustments of productive employment is a primary aim of all education. When we examine the facts, we discover that there is a critical lag in achieving such a purpose. Before the war, of each one thousand pupils in grade five, 770 entered high school, 417 graduated, 146 entered college and 72 were graduated. About 50% of the pupils entering grade 9 are graduated from high school with the holding power ranging from 90% in some suburban communities to 30% in other areas. Even though the over-all holding power is gradually increasing, there is a tremendous waste of potential human resources and the great economic loss which it signifies is the subject of careful study throughout the country. The answers to the question, "Why do pupils leave school?" reflects a wide variety of circumstances and motives. The economic status of the family, the overage, grade-retarded and grade-repeating status of pupils are primary factors. The pupils themselves indicate many reasons such as, preferred work to school; dislike to repeat a grade; dislike certain teachers or certain subjects; not interested in school work; could learn more from work than from school.

In New York State at the present time, approximately 30% of the pupils enter the professions after appropriate college preparation and 20% enter skilled employments after suitable vocational training in the high school. About 50% of the students are leaving school early and are entering semi-skilled or unskilled positions requiring short intensive training either at school or "on-the-job" training.

Another approach to the problem of helping youth is to look at the facts about what people do to earn a living in a particular community. In one community, for example, 35% of the workers are employed at jobs below the skilled mechanical level in industry, transportation, building, communications and utilities; 15% were skilled mechanics or foremen; 22%

were in clerical, office or salesmanship positions; 12% in personal service; 10% were employed in professional or semi-professional positions; 6% were proprietors, managers or executives. It will be clear, therefore, that education for work should be geared to the needs and outlets of the community or area to be served and to the interests and attitudes of the pupils.

The Impact of Technology

Steady and progressive growth is a primary objective of our American economy. Recent studies reveal a phenomenal rise in productivity per man hour. Indeed, this rate of productivity doubles in each 30 year period. Such a rise—which has given us the highest productivity of any country in the world—is due chiefly to rapid developments in scientific and technological research, improved know-how on the part of workers, services of labor groups, better management practices and the wise use of capital and credit facilities. The complexity of modern society requires a high degree of ability on the part of workers at all levels. Currently, there is a shortage of competent persons in practically all fields of employment. Conditions in agriculture, business and industry change so rapidly that they tend to outstrip by far the efforts of our schools to keep pace with new demands for training. This need for the services of technically trained persons rises more rapidly than the increase of persons available with specialized training. At present there is little probability of any substantial surplus of trained workers.

The demands upon foremen and workers for social adjustment and understanding have greatly increased. Working cooperatively in a wide range of relationships and participating wisely in determining production and social policies require new types of training which embody the best in teaching services. Furthermore, one of the major developments of our time is the new meaning that mechanical power has given to leisure. Persons away from the job need to restore and revive the values which center in the home, in recreation, in wholesome avocations and character-building activities.

Guidance

Guidance is the keystone of the arch of education for work. If these services are good, pupils move progressively forward; if they are nonexistent or if they are inferior, pupils become frustrated and maladjusted and leave school. It is a mistake to think of guidance as a recruiting device for courses or for subjects. Likewise shunting slow-learning, retarded and overage pupils into vocational courses on the assumption that because they do poorly in academic subjects, they will make progress in "hand work" is a tragic error.

Counseling requires professional skill. It is a technical and personal service to each individual pupil making his plans for a purposeful life. Counselors help pupils to know themselves in the full light of all of the facts about their interests, abilities and limitations and about the world of work in which they will live. Young people in their 'teens will make plans and decisions with far-reaching influence on their careers. They will have to decide such issues as the vocation they would like to enter, the location in which to live, how to get the first

job, ways and means of further education as adults as an aid in advancement, the habits and attitudes to have in order to get along well with colleagues and superiors, and ways of becoming active in local civic, service or community groups.

In developing guidance services each school should (1) know its pupils as individuals (2) know the community and transmit the information to its pupils (3) provide competent counseling for all pupils (4) assist pupils as they enter employment or further education (5) continue its service contacts with former pupils as adults and (6) continue its counseling activities throughout the calendar year. In vocational schools and departments, each classroom teacher should be responsible for cooperative actions in supporting an effective guidance program. He should (a) review the record folder of each pupil (b) teach career implications of his courses (c) note deviations in achievement of individual pupils and seek remedial assistance as needed (d) contribute information about pupils for cumulative records (e) advise with pupils on problems within the scope of their special subject knowledge or experience and (f) refer pupils needing special attention to counselors.

Course Offerings

In New York State during the past year over 400,000 persons were enrolled in industrial, business, homemaking and agricultural courses for day pupils and for adults. Industrial and technical courses are given in two types of schools—the separate vocational high school and the vocational department of a comprehensive high school. There are 42 vocational high schools—26 in New York City, 7 in Buffalo, 2 in Rochester and one each in Syracuse, Schenectady, Utica, Yonkers, Elmira, Niagara Falls and Ogdensburg. In 40 other communities, trade and technical courses are offered as departments of the local high schools. The vocational phases of each industrial curriculum include instruction in shop work and also in related mathematics, science and drawing or art. If success in a job depends principally upon manipulative skill, and to a lesser degree upon knowledge of mathematics, applied science or drawing, then a trade or industrial high school course gives appropriate preparation. Examples of such courses include body and fender mechanic, plumber, carpenter, bricklayer and dressmaker. However, if success in an occupation depends more upon an understanding of technical principles, and to a lesser degree upon manipulative skill, then a technical curriculum gives appropriate preparation. Examples of such courses include engineering laboratory assistant, chemical laboratorian, architectural draftsman, interior decorator and structural draftsman.

At present there are about 30,000 apprentices registered with the State Apprenticeship Council for whom 102 communities conducted 834 classes with a total enrollment of 20,129 apprentices. Apprentice agreements require specific training in two areas: practical instruction in the manipulative skills and related information in industrial and labor relations, safety, blueprint reading and sketching, trade mathematics, trade theory and science. In five years, enrollments in apprentice classes have grown from 1,200 to 20,129. Occupational extension

classes have been developed in 71 communities of the State enrolling 22,496 persons in 692 classes. Five years ago the enrollment in these classes was 9,146. These courses supplement the day employment of workers.

The major objective of the vocational business education program is adequate preparation for office and store employment. Such employment usually follows immediately upon the completion of the high school course.

Pupils whose school records are unsatisfactory, or who have little aptitude for or interest in business employment are not encouraged to study vocational business subjects.

Office and store employment standards are considerably higher now than formerly and are being raised each year. To meet such standards, courses of instruction include introduction to business, business arithmetic, typewriting, bookkeeping, business law, office practice, retailing, business management and salesmanship.

The merchandising phase of business education includes courses designed to prepare persons for employment in distributive occupations and is maintained on a cooperative and part-time basis. These services embody courses for adults now employed in retail stores as a practical means of improving their general competence and their ability to handle effectively the increasingly complex problems in the field of merchandising.

The successful farmer must be a skilled worker, a mechanic, a scientist and a manager of production and marketing services. In agriculture perhaps more than in any other occupation, research findings should be applied promptly by each operator if he is to keep pace with changing social and economic conditions and if he is to use mechanical power to advantage. The training of young men regularly enrolled in school and young adults already in farming to meet the new demands for technical competence has developed rapidly in recent years, with 300 schools enrolling 13,847 persons at present. The materials and methods of teaching are geared closely to the activities and interests of the farm organizations of the State and with the research and extension services. By this means, each local school is placed in immediate touch with the findings of the best tested experience relating to production and marketing.

The making of a home is an art as well as a science, providing opportunity for creative development and growth in desirable attitudes and ideals. For many years, courses intended to assist youth and adults to achieve competence in this field have been maintained in the high schools of the State. Homemaking calls for a continuous sharing of responsibility by all members of the family. Under parental guidance, children acquire security, a feeling of belonging to the family and a knowledge that they are needed. The home provides a rich environment for developing character and the cultural values and virtues which undergird our complex society. At present, approximately three-fourths of the girls and many boys of high school age are receiving instruction in this important field of study.

Actual participation in some gainful occupation on a work-study basis should be undertaken by many pupils. Under this plan, pupils work in a local industry or business for 15 hours each week and attend school for approximately the same time. The school in-

struction is tied to the interests and needs of the job. Once a youth can get a job and is able to hold it, many of the difficult problems of his life adjustment vanish.

Boys and girls enrolled in the junior and senior years of high school are able to profit by the joint work and study activities. As a result, there is a definite job conditioning for these young people emphasizing job skills, related knowledge and a wide variety of attitudes such as pride in a job well done, the ability to work well with others and to take direction, neatness in appearance, punctuality and the like. Present demands for this type of education indicate that in the immediate future it will be widely expanded.

Four Types of Training

Industries show wide variation in their requirements for operative skill, technical knowledge and management ability. Seven types of work are readily discernible: (1) unskilled workers, (2) semi-skilled operators, (3) skilled mechanics, (4) foremen, (5) junior technical workers, (6) engineers and other high-grade technical workers, and (7) managers. From the standpoint of operative skill and related technical knowledge, high school courses may be grouped to advantage to serve four types of interest and ability as follows:

(1) *Technical Occupations*: Vocational-technical courses have been successful and are becoming more popular throughout the country. They prepare for technical jobs in such fields as: aernonautics, air conditioning, architecture, building construction, electricity, industrial chemistry, photography, mechanical design and structural design, depending on the needs of the particular community. Pupils who complete these courses are prepared for immediate entrance upon employment and for entrance to institutes or to engineering colleges. Pupils in this group who complete a four year curriculum complete in addition to their technical work, four years of English, three years of social studies, one year of science and one year of health, with elective subjects as available.

(2) *Skilled Occupations*: For more than thirty years, our vocational schools have been preparing youth for the recognized skilled trades such as machinist, electrician, patternmaker, carpenter, beautician and dressmaker. In addition to their training in the skills, they are prepared to be intelligent mechanics by reason of their courses in related technical subjects such as mathematics, science and drawing. Furthermore, they have the same instruction in English, social studies, general science and health given to all high school pupils.

(3) *Semi-skilled Occupations*: With expert guidance, young people in this group may be helped in improving their job getting capacity and chances for promotion. These pupils form a large part of the 50% group mentioned earlier. To meet their needs, separate "blocks" of courses may be provided with 8 to 9 weeks devoted to each unit. If the pupil is able to complete twelve to sixteen of these blocks, along with academic subjects, he may earn the industrial high school diploma. However, if he leaves school at any point prior to graduation, he will have gathered sufficient competence to enter one or more of the semi-skilled employments. The scientific,

economic, industrial and labor relations content with shop safety will greatly enhance his employability.

(4) *Routine-Repetitive Jobs*: Pupils in this group need to acquire a fair degree of dexterity in one or more groups of jobs such as service station attendant, elevator operator, bell hop or bus boy. Such general ability may be taught in the industrial arts shop or in selected short unit courses in the trade shop. In addition, each pupil should have an understanding of the basic facts undergirding these jobs and the applied aspects of economics and business practice. The instruction should also include industrial and labor relations, shop safety and the building of wholesome attitudes toward one's occupation and the persons with whom he works. Before the pupil has an opportunity for the job, he should be taught specific job operations and elementary related content that he will need when he goes to work. Such teaching embodies a close relationship between shop operation as well as accurate knowledge of job requirements in local employments.

Adult Classes

Each adult in our present-day society is in the grip of many conduct-making and conduct-changing forces. Rapid developments in transportation and communication, improved productive capacity per worker, widening interest in professional and amateur sports, improved personal and community health resources, the expanding contributions of new inventions and research findings and the like combine to place adults in an environment that is both transformed and transforming. These changes are particularly significant in the field of occupations.

Local school officials have been quick to recognize the need for adult classes in both vocational and general fields of study and as a result there has been a rapid rise in enrollments throughout the State. Classes for young farmers dealing with mechanical, production and management problems, classes for persons in business who need refresher or upgrading courses and apprenticeship and occupational extension classes for industrial employees have shown substantial growth since the war. These classes have been particularly useful for young people who have left school without sufficient vocational preparation.

Instruction for adults is rendering a valuable service in our national ideal to develop a classless society. Emphasis on social, economic, literary and avocational interests is helping thousands of adults to share more effectively in the good life and in citizenship values. Group discussions, radio programs and evening classes develop a better understanding of American democratic society and its historic goals, in the light of current "cold war" tactics, that challenge the rights of free people everywhere.

Current Needs

A quick appraisal of current needs in the fields under discussion would look something like this:

(1) Guidance services should be expanded. As the vocational opportunities become more complex, the need for assistance to individual pupils becomes imperative.

(2) Each high school should provide the necessary minimum specific

preparation for a vocation for each pupil who will complete his formal education in that school. Such preparation should assist each pupil to make a quick transfer from school life to productive and remunerative employment. Many high schools at present are not meeting such a standard.

(3) Each community should gear the vocational course offerings to meet area opportunities and requirements.

(4) Many districts should provide a wider selection of courses for girls. Most high school programs are designed for boys. We should recognize that girls have specific interests and aptitudes quite different from boys and we ought to consider what they will do after leaving school. Girls look forward to marriage and homemaking, and in many instances to an interim job. These aims reflect the need for a wide extension of homemaking courses and occupational training services, especially for nursing, business and industry.

(5) More adequate programs should be provided for gifted and talented youth. Schools tend to serve chiefly the average social group and in so doing neglect the bright and talented pupils. Here indeed is a dilemma; how to meet the needs of the talented pupil and the slow learner in the same school. Teachers and citizens alike are becoming alerted to this issue and studies are underway to find appropriate solutions.

(6) Many farm youth need vocational training services that will prepare them for nonfarm employments. Currently, about half of the youth born on farms can be productively absorbed in farm employments. Through county vocational education and extension boards, boards of cooperative education service and intermediate school districts as authorized by the statutes, it is expected that more adequate industrial and business training facilities will be provided for these young people who need such preparation.

(7) Citizens should rally to the support of public education. We should note the key role of education in the amazing progress of the United States, not only in material advances but likewise in the values of the human spirit and cultural ideals. We have shown the world what a free people can do in widening the opportunities for all youth for productive and happy living. Only by the united efforts of our people in peace and in war can the vast resources of education for work, for leisure, for citizenship and cultural ideals be used to rebuild freedom in a troubled world.

Appreciation *of* World Literature *at the* Secondary Level

By CONSTANCE F. STECHER, M.A.
Head, Department of English, Braintree High School, Braintree, Massachusetts

THE present crisis in world affairs requires world understanding of and international cooperation between all nations of the earth. As never before East must strive to understand and appreciate the culture, aspirations, and traditions of the West; the West those of the East. The interpretation of the causes and effects of events must be that of One-World, for no longer can isolation be considered a contributing factor towards national security. The citizen of the nation must enlarge his vision and his understanding to encompass the global aspect. He must of necessity become a citizen of the world. This fact is especially true of the generations of Americans now in American schools at the secondary level. A great deal can be done to achieve such an end through a course in the appreciation of the great works in the literature of the world adapted to the upper two years of the secondary level. Never can a world of the Four Freedoms, with the ultimate hope for world security, be achieved without the development of a better understanding between the peoples of the earth who must live together in harmony. Science has taught the world that lesson.

The introduction of a simplified course in world literature at the secondary level (in the senior year, preferably) should have as its specific purpose a better understanding of the events linking the principal nations of the earth through a study of some of the outstanding literary masterpieces of the world handled in such a way as to emphasize, in the pupil's mind, the Global-One-World aspect of historical and literary trends which have shaped the past and are now patterning the continuity of every-day living. The course should integrate courses in the various periods of history, courses in English and American literature, courses in the sciences and courses in the fine arts. The modern pupil needs to develop a broadened point of view by being taught the coordinated world relationship of past and present.

Literature has the power to create sympathetic understanding because it is personal, direct, and intimate. Thus, at a time when the development of world understanding is one of the great educational problems, it is essential that our young people should have an opportunity in high school to examine as many of the cultural sources of other nations as possible. A high school course of this type should offer "a presentation of literature as a human document through which one comes to sense the spirit of other peoples."

The author can recommend no bet-

ter text for such a course than *Adventures In World Literature,* Inglis & Stewart, Harcourt Brace & Co., 1936, in which the authors have stressed six principal language groupings. Within each of the six groupings in the first part of the book "the material is arranged chronologically to enable the student to watch the emergence of each national literature from the dim beginnings of medieval times into the illuminated power of the recent centuries." The second part covers classic literature, while the third dips into the literature, life, and philosophy of the Oriental races.

At Braintree High School such a course in world literature is offered to seniors as one of several choices at the college level. The purpose of the course is to offer to capable pupils an opportunity to study for understanding and appreciation some of the books which, because of their power, artistic beauty, and interest in subject matter, command a place in world literature. The content of the course is designed to enlarge the pupil's realm of interest, knowledge, and understanding through research projects to increase familiarity with library facilities and at the same time to stimulate his curiosity. Literary selections from faraway lands help the pupil to see and understand the common heritage of us all. From his reading a pupil can trace the development of man's thinking throughout the ages.

Pupil-interest is maintained by means of round-table discussions which emphasize the problems common to all human beings in action on the world as a stage. From knowing and understanding fictional characters and their problems, the pupil comes to know and understand real people and the real problems of the actual world in which he lives. The course offers a wide range for freedom of choice in reading and writing, especially for those pupils who have specific interests in history, painting, modeling, architecture, music, and literature. The course is highly individualized, using pupil interests and talents as a basis for the project and reading program of each pupil; it is primarily a project course wherein each pupil may explore the fields generally and his own in particular. Pupils are continually encouraged to seek out aspects which they can find of value for themselves from the literatures of foreign lands. The only required reading is the text background material which accompanies each unit; an outline is kept for examination use. The rest is free reading upon the unit at hand.

A course of this type offers an excellent chance for the instructor to teach the techniques of bibliography, notetaking, outlining, thesis writing, footnote form, summaries, critical analyses. In fact, the final examination for the course consists of a research paper in a limited field of the course as chosen by the pupil. By means of both oral and written reports the teacher has continuous opportunity to review principles of grammar and rhetoric as needed by the individual. Opportunities are unlimited for work with the individual toward improvement in reading ability. Word study is important in the process of research in the terminologies used in discussing the various phases of history, literature, and the fine arts.

The course at Braintree High School is conducted in such a way as to employ as many as possible of the

recognized study skills. The course is based on the laboratory plan in which there is daily participation (sometimes in group, sometimes individually) in gathering material for the unit for purposes of class discussion and report and the compiling of individual notebooks. Instruction is given in the gathering of material and the filing of the same for future use, in the finding of the central idea in reading, and in outlining. In this way each pupil may proceed at his own speed, placing emphasis on individual interests, tastes, and ideas as well as upon individual capacity to do work. The course is designed as a purely cultural course in which each pupil may choose his own cultural path within course limits.

Supplementary reading allows complete freedom of choice for the individual to browse about in search of books (on the unit under study) which appeal to him as valuable for the task at hand. The school provides an extensive classroom library as well as the facilities of both the school and public libraries. This extensive use of library reference material helps the pupil to concentrate on purposeful reading as well as giving him experience in judging values in his reading. It offers the opportunity of passing judgment after consulting several authorities on a subject. It develops breadth of interest.

The work of some of the units is supplemented by films either provided or rented by the school for the purpose, although not too much suitable material of this nature is available. Recordings play a most important part of each unit in depicting the life and character of the people. This helps greatly to inspire interest and understanding. The school provides a great many recordings and the pupils bring in many of their own. Once in a while a field trip is incorporated into the schedule when it can be done so conveniently.

A course of this type is so full of chances to put into practice various teaching techniques that it is a challenge to teacher planning. But group results are astounding in oral reports, in formal papers, in critical book reviews, and in craft projects. And the pleasing over-all observation is that pupils seem to like the work.

Significant results to be expected can be listed as follows:

1. Class coverage of a great variety of reading material in each discussion unit.

2. Class benefit through participation in round-table, panel, and individual committee discussion held during the progress of the reading.

3. Pupil-interest in selections read and reported on by fellow class members.

4. Broader understanding of the literature of the unit.

5. Use of individual pupil interests as portrayed in choice of reading.

6. Discussion of problems of genuine interest to the individual.

7. Development of student leadership.

8. Pupil cooperation, both individual and group.

9. Experience in pupil responsibility for planning and organizing.

10. Experience in the general organization, preparation, and writing of a term paper, bringing in the language skills of reading, notetaking, outlining, spelling, punctuation, grammar, sentence structure, style, and general composition.

11. Pupil evaluation of individual interests.

12. Wide variety of types of literature read by each pupil.

13. Self-evaluation of learning accomplished during a unit.

14. Exchange of ideas bringing about pupil opinions, criticisms, and suggestions.

15. Development of poise and confidence before the group.

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The Happiest Year *of* My Teaching Career

By PAUL E. SMITH

Assistant Director, Division of International Educational Relations, U. S. Office of Education

I HAVE no idea now how many times I have read the phrase, "The happiest year of my teaching career," but scores of teachers who have served abroad for a year in England, France, or Canada have written those words. Again and again the teachers, both American and foreign, have said, "I have just spent one of the happiest years of my life, and, I can honestly say, the happiest year of my teaching career."

Why was the year happy? What was the stimulation? What made it exciting? Among the many answers that are evident immediately are ones such as living abroad for a year, being stimulated intellectually, or just plain getting out of a comfortable rut. There are additional reasons, however, which reach more deeply into the lives of these teachers. They are constantly challenged both in their professional and private lives. They represent a great country; not many Americans when they are in England visit Cleethorpes or Market Rasen regularly, and not many British make repeated stops at Bellwood, Pennsylvania; Orange, Texas; or Marysville, Michigan. Therefore these teachers coming from all sections of their countries represent all that their nation stands for; they are the ones who have to cope with the ready made myths which obtain about their citizens and country.

How did it come about that teachers would be exchanged? Before the outbreak of World War II, a very successful interchange of teachers between Great Britain and the United States was carried on through the English-Speaking Union. A total of 134 American and British teachers exchanged places during the fifteen years that the program was in operation. During the five years immediately preceding the outbreak of hostilities there was a growing interest in these exchanges and an increasing number was arranged.

At the close of the War, late in 1945, the Foreign Office of the United Kingdom sent a communication to the U. S. Department of State suggesting that the interchange of teachers between the two countries be resumed. It was proposed that teachers from all types of schools participate, exchanging positions for a period of one year. The Department of State called together a representative group of educators to consider the proposal, and from this group an Interim Committee was appointed in February 1949 to provide assistance and guidance in getting the interchange program under way. The membership of the Committee included representatives from

the National Education Association, the American Council on Education, the English-Speaking Union, the American Federation of Teachers, the American Association of University Women, the Institute of International Education, the American Association of School Administrators, and the National Association of Secondary School Principals, as well as representatives of the Department of State and the U. S. Office of Education. The Chairman of the Committee was assigned by the Office of Education.

The interchange of teachers between Great Britain and the United States was resumed in the academic year 1946-47, with 74 pairs of teachers exchanging places. Since then, additional programs for teachers have been effected in France, Canada, Belgium, Burma, the Philippines and Luxembourg. In both France and Canada as in the United Kingdom, the operation is strictly on a head for head exchange. In other countries there are opportunities for our teachers to work in the schools but the exchange is not necessarily on a head for head basis.

Since 1946, there have been more than 1200 teachers participate in exchange programs, some of which are on a post for post exchange and some are in assignments in national schools in other countries. It is anticipated that during the 1951-52 school year there will be opportunities for United States teachers in Great Britain, France, Canada, Belgium, Luxembourg, Italy, Norway, New Zealand, Burma, Egypt, Greece, India, Iran, the Netherlands, the Philippines, and Turkey. With the passage of the Fulbright Act in 1946, there was given tremendous impetus to the exchanges for teachers in many countries.

For teachers of English in the United States there has been an especially keen attraction to participate in the interchange program with Great Britain. And literally hundreds have applied to go to England. Since there must be a matching, that is, if a teacher of English goes to Great Britain, a British teacher of English must be available to come to this country. Approximately ten per cent of the British candidates are in the field of English. Therefore, we on this side of the Atlantic have been embarrassed by riches which we could not use.

Of those who did go to teach for a year in a British school the gains have been just shy of being marvelous. Here, for example, is a literary treat provided for all the American teachers during Whitsuntide at Stratford-Upon-Avon.

"SHAKESPEARE"

A Course for American
and Dominion Teachers
at Stratford-Upon-Avon
14th May to 18th May 1948

The Course of Studies is under the auspices of the British Council, the British Committee for the Interchange of Teachers between Great Britain and the United States, the League of Empire, the Governors of the Shakespeare Memorial Theatre and the English Speaking Union.

Its object is to bring to Stratford-upon-Avon the American and Dominion teachers on interchange in Great Britain and, by the series of lectures, to add to their knowledge and appreciation of Shakespeare. Some of the lectures aim at illuminating the background against which Shakespeare wrote his plays while others serve as commentary upon the play to be enjoyed in the theatre the same evening.

PROGRAMME

Friday, 14th May

4:30 p.m. Tea at the British Council Centre, Mason Croft, Church Street. Reception and speeches of welcome by the Mayor of Stratford-upon-Avon, Lieut.-Colonel Fordham Flower, O.B.E., and the British Council Representative, Mr. Ernest Burbridge, O.B.E.

Saturday, 15th May

10:00 a.m. John Garrett: "Approach to Shakespeare"

11:30 a.m. John Bryson: "King John"

7:30 p.m. Performance of "King John."

Sunday, 16th May

There will be Services at Holy Trinity Church at 8 a.m., 11 a.m. and 6:30 p.m. The Vicar, Canon Noel Prentice, will welcome members of the Course at all Services, and will make reference to the Interchange Teachers at the 11 o'clock Service.

4:00 p.m. Tea Reception by the English Speaking Union (Stratford-upon-Avon Branch) at the Shakespeare Memorial Theatre.

5:30 p.m. Brains Trust at the British Council Centre, Mason Croft.

Monday, 17th May

10:00 a.m. A. L. Rowse: "The Elizabethan Age"

11:30 a.m. Peter Brook: "The Taming of the Shrew."

7:30 p.m. Performance of "The Taming of the Shrew."

Tuesday, 18th May

10:00 a.m. Phyllis Hartnoll: "Shakespeare's Theatre and Elizabethan Stage Conditions."

11:30 a.m. Basil Wright: "Shakespeare and the Films."

Then there are the personal research projects, the browsing in book stalls, and the travels. One of the teachers of English told of his experiences this way:

There was the pilgrimage to Stratford, for instance, with three masterful Shakespearean plays, 8 visits back stage, to the Davy Garrick Room, to the Bard's Grammar School, and all other buildings associated with his life.

The home museums of Britain's great writers presented an unusual opportunity, such as Keats' (Hampstead); Shelley's (Rome); Dickens' (Portsmouth and Doughty St.); Dr. Johnson's (Lichfield and Gough Sq.); Stevenson's (Edinburgh); Carlyle's (Chelsea); Burns' (Alloway); Ruskin's (Coniston); Scott's (Abbotsford); Hardy's (Dorchester); Wordsworth's (Cockermouth and Grasmere); Milton's cottage at Chalfont St. Giles. One made pilgrimages too, to the Stokes Poges churchyard of Gray's "Elegy" in both winter and summer; to Ludlow Castle, where "Comus" was first performed, to Canterbury over the route of Chaucer's pilgrims, to Swift's grave and pulpit in St. Patrick's, Dublin, to the last resting places of Swinburne (Isle of Wight), Shakespeare, Blake, Defoe, Bunyan, Bacon, Jan Austin, Burns, Scott, and Laurence Sterne's rifled tomb, and to the Poet's Corner of Westminister Abbey. Or one traced down the wierd wizardry of the Blake paintings at the Tate; or came enraptured, into the courtyard of the "Old George Inn" just as Dickenseans were performing scenes from "The Tale of Two Cities" upon a large, flat-topped vehicle, much like the way miracle plays were done in medieval days; or recaptured the tenseness of Charles

Darnay's trial in the top criminal court of Old Bailey; or explored Bankside and the site of the old Globe Theatre; or poked about "Cranford" and the "Old Curiosity Shop," or evoked Arthurian magic of Glastonbury's Abbey; or listened upon a rainy night, beside a peat fire in a lowlands home, to an aged Scot reciting "Tam O Shanter" with verve and ample bur."

Other teachers of English from the United States were equally busy investigating the Houses of Parliament, Westminister Abbey and the Lake District so that these places were no longer printed words on a page. Some saw "dark Tintagil by the Cornish sea," and one went to the "sunset bound of Lyonnesse" where she could imagine King Arthur making his last stand. Some experienced with rare good pleasure hearing, "Time, gentlemen, please."

Beyond these personal gains which make nightingales, skylarks, Avon, Picadilly come alive for their students, the teachers on both sides of the Atlantic made significant contributions in humanizing international relations. They learned that it takes time to change preconceived ideas; they have become acquainted with other people and found differences superficial. They changed the British youngsters' minds about the United States. One English lad said, "I thought before that the United States was all big towns and even farms were built of stone or concrete. Fancy three thousand miles from the Atlantic to the Pacific ocean all in one country."

A teacher from Great Britain said of her experiences in the United States that:

When I embarked on this venture, I must admit I went with the typical English person's outlook and ignorance of American life in the Middle West. Some of the ready made myths, for example, regarding "isolationism," were soon exploded, and I realized I was extremely fortunate to be sent to such an interesting section of the country. Having since travelled in thirty of the forty-eight States, I now realise the danger of any generalisation about America, but if anywhere in the country can be said to be the meeting of east and west, and if anywhere in the States has any claim at all to being called "typical" in that continent that defies classification, then I believe that the Middle West area has it.

My first class was a bright group of 25 senior students, a selected group of accelerated boys and girls, all aiming at further college education. With them I took a survey course in English literature using an anthology, which they seemed thoroughly to enjoy. They worked steadily and we covered a very great deal of reading during the year.

I did not have a class of juniors, as their work is mainly on American literature, and, as the head of the department suggested, it would not have allowed me to make my best contribution to the school—very tactful; he never once hinted that perhaps I would not be widely read enough to take it, which would have been true, I regret to confess. "To have English literature taught by an English person" was his object.

As one American teacher said, "Out of all this the Hills of Vermont have receded and a little of the interrelation of the world and its peoples has come."

Apologia Profundus!

By NOLAN CHARLES KEARNEY
Assistant Superintendent, Department of Education, St. Paul, Minnesota

"THE old school isn't what it was twenty years ago. Back then they had giants on the staff—men whose opinions were new and startling, yet sound and practical. These boys they have now are lightweights by comparison. They have very little to offer." How many times have you heard this story? Let's engage in a little self analysis—all of us, but particularly those of us who are either approaching middle age or still clinging to it.

Years ago as callow undergraduates we were different people than we are today. We were far less able to evaluate our professors. So short a time had we lived and so little did we know that even a moderately informed teacher appeared to us as the possessor of Socratic wisdom. Our experience with interesting personalities had been limited too, and the man or woman who could charm us with personality or interest us with roguishness then might seem today to be an affected posturer.

As we grew older and felt the need for additional professional training, we returned for the graduate degrees or for the credits that would qualify us for the larger jobs toward which we aspired to move. We returned with real problems in mind after experience as young teachers and administrators. We knew enough to recognize the things we wanted to learn and we admired those who could lead us in the search for them.

Our stint completed we left the old school again with our new sheepskin or certificate and with a pleasant glow of appreciation for the helpful institution. But the years have passed. Our major professors (Boy—was he tough? I rewrote that thesis three times!) has passed on to his reward. The Dean has left to be president of "Latent U," and has been replaced by a younger man. Many of the other professors have left too. The new crop is liberally sprinkled by homegrown Ph.D.'s who in many cases appear to reflect boiled down versions of the materials their elders taught to us.

Now let's return to ourselves. We have grown up professionally during these years. We have taken short courses, attended workshops and conventions, exchanged ideas with the leaders in our profession, read the new professional books and magazines, and worked hard at our profession in close contact with others who have also been alert and learning. We could probably do a pretty good job of teaching some introductory professional courses ourselves, at least on the undergraduate level. Perhaps we could even be trusted with some graduate courses in the fields of our special interests and preparation. (We'd cram—maybe even read a book.)

We have been learning and growing all these years and that is one reason for the seeming decline in the old school. In spite of that, we can still

return for short courses and workshops with benefit to ourselves and to our professional associates. It's reasonable to expect that there will be much material that is old and repetitious to us, but there will be something new, too, now and then. When new research, new methods, and new viewpoints come up, they will be well worth waiting for. They will tend to give new point and meaning to what we already know. Through the years, we have been gaining stature ourselves. We are more nearly the professional equals of the present generation of professors. It is unfair to expect them to tower above us as they did twenty years ago.

This mistake is not peculiar to our profession. The top salesman of a big organization told me recently that the recent sales meetings of his firm were losing their punch. "It seemed," he said, "that I learned less than ever. They put me on a panel." A political scientist interested in municipal government ventured a similar opinion about recent meetings in that field. Reporters who cover legislatures are apt to reminisce about the giants of a bygone era—the era of the reporters' unsophisticated youth. And so it goes! When we return to the old swimming hole of our youth, it's not so wide and deep and clear as we remembered.

There may be a different though related reason for our critical reaction to the old school. We may be getting a bit set in our ideas. Throughout our careers, we have had to change our viewpoints many times. The word "viewpoint" here is an important one. Frequently we have scoffed at the new words that have sprung up in the profession. "Mere nomenclature," we have said. "Give a new name to something old and claim to be a prophet!"

But we have adopted the new names and the new concepts again and again by slow degrees. We were right in saying that they were mostly new names for the same old thing, but nevertheless they did represent new viewpoints. The modern astronomer sees about the same thing as he goes home on a clear night that Copernicus saw. But he has a different and more sophisticated point of view! As knowledge of human growth and development of medicine and psychiatry, of cultural anthropology and sociology, of psychology and meaning has developed, our point of view has had to change, too, and the use of new words has proven to be a convenient means of symbolizing our new concepts. Each time we have adopted a new viewpoint and made it our own, we have had the satisfaction that comes from learning and developing. We have attacked our work with new interest and vigor, and we have been proud to see the new thing function as a part of our program.

But we make a mistake when we identify our professional selves with any special set of ideas or procedures. Imagine how disturbed a physician would feel who identified himself and his professional status with the lengthy and almost hopeless treatment given syphilis just a few short years ago, or with the recent almost certain childbirth losses involving the RH factor. He can only be happy in his profession when he has the confidence to do the best he can today, knowing that tomorrow he and his fellows will be able to do better and better. Yet I heard

a fine old doctor making fun of psychosomatic medicine the other day. "It seems," he said, "that arthritis isn't arthritis anymore. It's an emotional upset caused by something like fearing you're not loved or wanted by your wife. Bosh and humbug!" Of course, I'm not an expert in his field, but I couldn't help noticing that he said "arthritis," and not "rheumatism" as an earlier generation would have done. Furthermore, I don't think I'd pick him for my personal physician.

There is nothing more certain in our profession today than change itself. We have much research that indicates the need for change. Sometimes conflicting research gives point to the tentative nature of much so-called progress. We have but to look about us to see the changing nature of the world in which we live. If education has to prepare those who are to live in that world, how adaptable it must be!

No, we must not be averse to change. We must not get set in our ways. The young whippersnappers in the old school will themselves sometime grow old and be tempted to become irascible, even as we would find it easy to do today. They will have to tug as we do to keep out of the rut that wears so conveniently but dangerously deep.

The old school may be closer to the top than we think. Sometimes it appears not to be so because (1) (ahem!), we ourselves are pretty good, or (2) (harumph!), we're slipping!

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